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ABSTRACT

This report analyzes the following issues affecting public higher education: student charges; deferred maintenance; state fiscal conditions; the National Retention Project; and prepaid tuition plans. In each section, the report includes an overview of the issue, and presents highlights, findings, analyses, extensive charts and graphs, and references. Concerning student charges, analysis focuses on average undergraduate resident tuition and fees (1985-95); appropriations vs. net tuition per student; and average room and board charges. Analysis of deferred maintenance focuses on indicators of the seriousness of the problem, current trends in physical plant/maintenance spending at public colleges and universities, and state and federal policy implications. For state fiscal conditions, the report finds that state finances are looking good, and calls higher education "the balance wheel of state finances." For the National Retention Project, findings indicate improvements in data collection and analysis, and note the influence of administrative, academic advising, and assessment conditions. Examination of prepaid tuition plans analyzes issues of participation and subsidy, and risk considerations. Data are presented in 23 tables and charts. (Contains 14 references.) (DB)

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STATE AND NATIONAL ISSUES AFFECTING PUBLIC HIGHER EDUCATION

A COMPENDIUM OF AASCU SPECIAL REPORTS

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Introduction

The American Association of State Colleges and Universities (AASCU) is a Washington-based higher education association of more than 400 public colleges and universities and systems across the United States and in Puerto Rico, Guam and the Virgin Islands.

The reports published in this compendium constitute an analysis of current issues affecting public higher education. They were published in the association's newsletter, *MEMO to the president*, and are now bound as one publication for convenience. AASCU produces these and other reports annually to promote a better understanding of public higher education; to provide information and analyses to those responsible for setting legislation, rules and regulations; and to alert our members to trends or changes in the education environment that may affect them.

The reports can also be useful to presidents, chancellors and their government relations and communications staff as they respond to requests from policymakers and the media or prepare speeches or reports.

This information is also available through AASCU's Web site, www.aascu.nche.edu.

Student Charges

* Refers to *education and general revenue*, which is revenue applied toward instruction, research, public service, academic support, student services, institutional support, operation and maintenance of plant, scholarships and fellowships, and mandatory transfers.

** The Consumer Price Index (CPI) measures inflation based on the cost of goods and services purchased by the average consumer. The items priced for CPI include food, shelter and fuels, transportation, medical services, and medications.

*** The Higher Education Price Index (HEPI) is a measure of inflation based on the cost of key goods and services purchased by colleges and universities, including salaries/fringe benefits, contracted services, supplies and materials, equipment, library acquisitions, and utilities.

Overview

State support of public higher education has improved significantly in the last two years. As the national economy steadily grows, states have almost universally met or exceeded their annual revenue collection estimates, with 11 states exceeding even their most optimistic scenarios. This has allowed public higher education more opportunity to successfully compete for state dollars with competing priorities: corrections, K-12 education, and Medicaid.

To be sure, state revenue collections have not expanded as fast as state economies, and in general, revenue estimates have been cautiously conservative. Nonetheless, the improvements have made higher education budget planning more predictable and mid-year cuts have been avoided in all but a couple of states. Although the state funding improvements have not by any means restored the funding losses from the beginning of the decade, they have helped relieve high levels of pressure for tuition and fee increases. The rate of increase for student charges continues to moderate, as this year's report reflects.

Room and board charges continue to closely reflect higher education operating costs. Many residence halls were built in the late 1960s and early 1970s and are in need of substantial maintenance efforts, particularly for roofing, heating, ventilation, and air conditioning systems. The growing increases in traditional-age students are creating some pressure to build new on-campus housing or to expand existing facilities. These operating and market factors will continue to create pressure on room and board charges for the foreseeable future.

Highlights

In fall 1996, average tuition and fees at four-year public institutions stood at $2,966, an increase of 5.5 percent ($155) over fall 1995. For AASCU institutions, average tuition and fees stood at $2,618, an increase of 4.5 percent ($113). The rate of increase for tuition and fees is holding steady in the 5-6 percent range, at some of the lowest levels in the past ten years.[1]

Tuition and Fees

- In fall 1996, nearly half the states increased tuition and fees by less than $100 over fall 1995 levels.[2]
- The highest tuition and fee charges for fall 1996 were focused in the Northeast, which is consistent with previous years' findings.[3]
- Between 1985 and 1995, average tuition and fees increased 116 percent in current dollars; in constant (inflation-adjusted) dollars, the increase was 52.1 percent.[4]
- The proportion of tuition and fees in the revenue of public universities is increasing. In 1990-91, tuition and fees made up 27.7 percent of total general funds revenues* at public baccalaureate institutions; by 1994-95, this proportion had risen above the one-third mark (35.2 percent).[5]

Room and Board

- The rate of increase for room and board charges (through fall 1995) continues to track closer to the rate of inflation.[6]

Cost Concerns

- More than half (55 percent) of all institutions surveyed by the American Council on Education (ACE) report concern about costs to be one of the most significant changes over the past ten years; more than three-quarters (76 percent) of public comprehensive institutions sampled indicated this as a concern. In addition, 55 percent of all institutions sampled by ACE cited rising tuition and fees as a factor affecting enrollment in the past ten years. Similarly, 55 percent of public comprehensive institutions reported rising tuition and fees as an enrollment factor.[7]

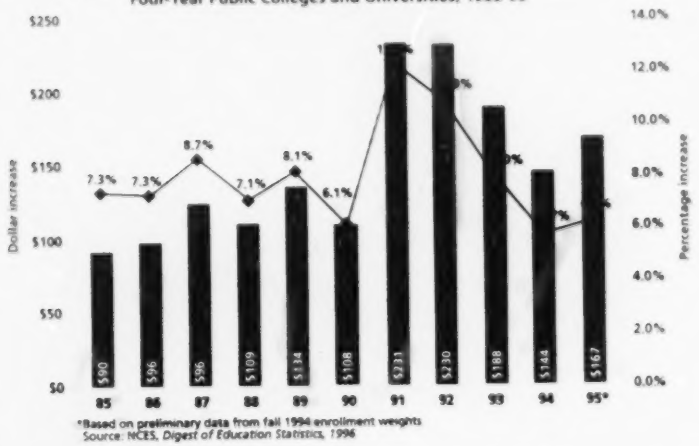
Inflation Measures

- For Fiscal Year (FY) 1996, the general rate of inflation, the Consumer Price Index (CPI)** stood at 2.7 percent, while the rate of inflation for colleges and universities, the Higher Education Price Index (HEPI),*** was 0.3 percent higher at 3.0 percent.[8]

State Fiscal Health

- The overall fiscal health of the states is good, as indicated by the current size of year-end

Figure 1. Average Undergraduate Resident Tuition and Fee Increases, Four-Year Public Colleges and Universities, 1985-95



*Based on preliminary data from fall 1994 enrollment weights
Source: NCES, *Digest of Education Statistics, 1996*

balances as a percent of expenditures, the fact that actual revenue collections exceeded estimates in a majority of states, and by the fact that 27 states approved tax reductions for FY 1997.[9] State appropriations for higher education show similar signs of vitality, increasing an average (weighted) of 4 percent between FY96 and FY97, and 8 percent between FY95 and FY97. In fact, only eight states reported declines over a one- or two-year period.[10]

Findings and Analysis

Average Undergraduate Resident Tuition and Fees, 1985-95 (national)

- The increase in undergraduate resident tuition and fees, both in percentage and dollar terms, appears to be holding steady at a rate considerably lower than the rate observed in the early 1990s. In fact, with the exception of 1990, the percentage increases for 1994 and 1995 mark the lowest points in an 11 year period. This trend is due in part to overall improvements in the nation's economy and related stability in the fiscal landscape for most states (See Figure 1).[11]
- Even more striking, though, is the change in average undergraduate resident tuition and fees when adjusted for inflation by CPI. In current (unadjusted) dollars, the cumulative increase is 116 percent ($1,530); in constant (adjusted) dollars, the increase is less than half the increase in current dollars—52.1 percent ($687). Distributed evenly over the 11-year period, the average annual increase (in constant dollars) is approximately $62.50 (see Figure 2).[12]

Appropriations vs. Net Tuition per FTE Student (national)

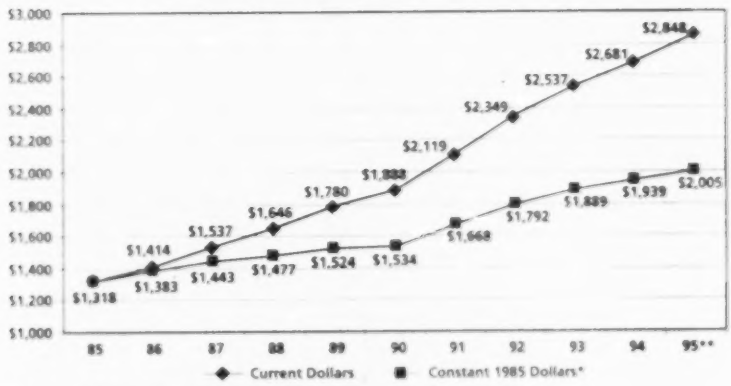
In college cost discussions, the question of relative increase between state appropriations and tuition is invariably asked. Often the tendency is to focus on increases in tuition and fees, without accounting for the fact that tuition-setting decisions are linked to support provided through appropriations.

Just how has tuition per FTE student changed relative to appropriations per FTE*? Are there factors that account for any mismatch between the rates of increase? The following provide some insight on these issues:

- In nominal dollars, appropriations per FTE student increased 106 percent ($2,471) between FY1980 and FY96, while net tuition per FTE student increased 260 percent or $1,603 (see Figure 3).[13]
- Consistent inflation adjustment by the Higher Education Price Index (HEPI), however, adds another dimension to the story.[14] If appropriations per student had been consistently increased by the rate of inflation for higher education costs, that figure would currently stand at $5,566, as opposed to its current level of $4,801 (-$765). Similarly, if net tuition had been consistently increased by HEPI, it would currently stand at $1,471, rather than its current level of $2,219 (+748). Thus, the deficit in nominal dollar vs. inflation-projected appropriations per FTE student is matched nearly dollar-for-dollar by the surplus in nominal dollar tuition per FTE student vs. inflation-projected tuition per student (see Figure 3).

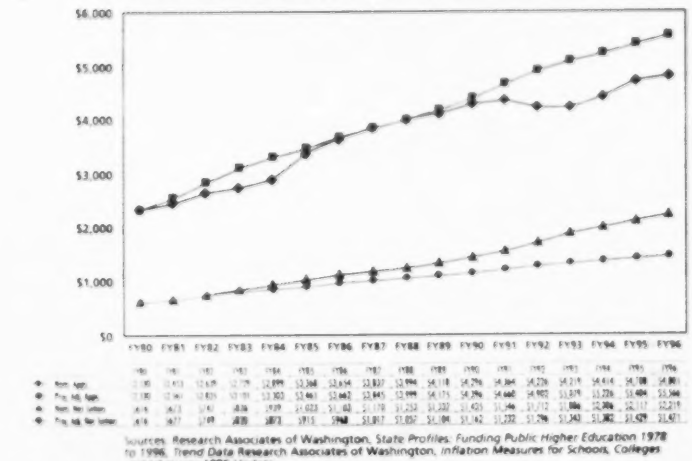
*** Appropriations per FTE student refers to state and local appropriations for public higher education (all levels) per FTE student, excluding funding for non-departmental research, agriculture, public health care, and medical schools. Tuition per FTE student refers to total tuition revenues per FTE student, less state appropriated student financial aid and tuition waived. This number indicates the net tuition paid by a hypothetical average public student (all levels, resident/non-resident).**

Figure 2. Average Undergraduate Resident Tuition and Fees at 4-Year Public Colleges and Universities, 1985-1995 (Current and Constant 1985 Dollars)



*Adjusted for inflation using CPI (FY86 base)
**Based on preliminary data from fall 1994 enrollment weights
Sources: NCES, *Digest of Education Statistics, 1996*
Research Associates of Washington, *Inflation Measures for Schools, Colleges and Libraries: 1996 Update*

Figure 3. Average Actual vs. Inflation-Projected Appropriations and Net Tuition/FTE (HEPI), Public Colleges and Universities, FY80-FY96



Sources: Research Associates of Washington, *State Profiles: Funding Public Higher Education 1978 to 1996*; *Trend Data* Research Associates of Washington, *Inflation Measures for Schools, Colleges and Libraries: 1996 Update*

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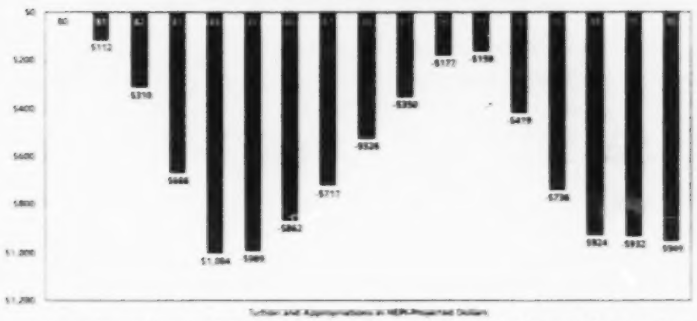
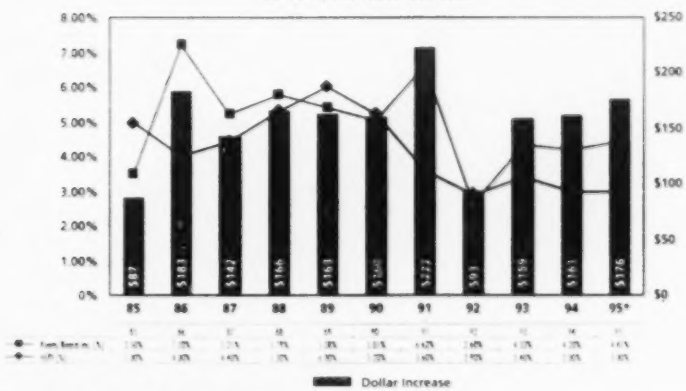
What does this mean? It means that the well-documented tuition increases at public colleges and universities over the past several years were not exercises in price gouging—they represented attempts by colleges and universities to make up for the lost purchasing power of appropriations.

Figure 4. Net Cumulative Changes in Public Higher Education Purchasing Power (per student FTE), FY80-FY96



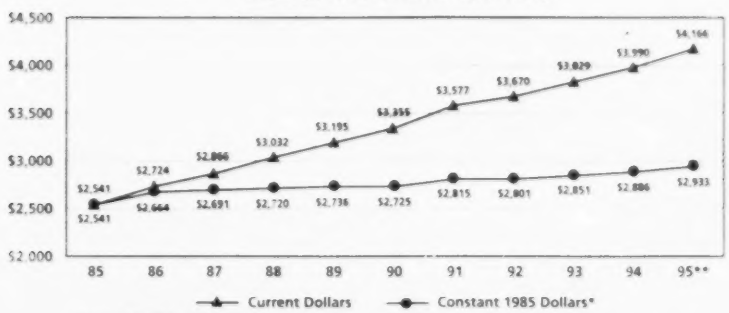
Sources: Research Associates of Washington, *State Profiles: Financing Public Higher Education 1978 to 1996, Trend Data* Research Associates of Washington, *Inflation Measures for Schools, Colleges and Libraries: 1996 Update*

Figure 5. Rate of Increase for Average Room and Board Charges vs. HEPI, Fall 1985-Fall 1995



*Based on preliminary data from fall 1994 enrollment weights.
Notes: Data for fall 1985 are estimated. Fall 1986 marked a revision in data collection procedures, making fall 1985 data not exactly comparable to succeeding years.
Sources: NCES, *Digest of Education Statistics* (1996)
Research Associates of Washington, *Inflation Measures for Schools, Colleges and Libraries: 1996 Update*

Figure 6. Average Room and Board Charges, 4-Year Public Colleges and Universities, 1985-95 (current and constant 1985 dollars)



*Using CPI (FY86 base)
**Based on preliminary data from fall 1994 enrollment weights
Sources: NCES, *Digest of Education Statistics, 1996*
Research Associates of Washington, *Inflation Measures for Schools, Colleges and Libraries: 1996 Update*

- The loss of this purchasing power is even more apparent when viewed cumulatively. Adding the annual difference between nominal appropriations per FTE student and inflation-projected appropriations per FTE student results in a deficit of $5,456 between FY80 and FY96. Doing the same for nominal tuition per FTE student and inflation-projected tuition per FTE student results in a surplus of $4,507—a shortfall of $949 when measured against appropriations (see Figure 4).

What does this mean? It means that there have been significant gains in appropriations per FTE student over the past couple of years, but these gains have not compensated for losses in purchasing power that have accumulated over time. Colleges and universities understand that these losses will probably never be recouped, and are simply looking for an appropriations/tuition balance that will allow them to keep pace with inflation and maintain their purchasing power.

Average Room and Board Charges, 1985-95 (national)

- As with tuition and fees, the trend in the rate of increase for room and board has been generally holding steady over the past couple of years, though at a level closer to CPI or HEPI (see Figure 5). In current dollars, the room and board average has increased $1,625 between fall 1985 and fall 1995 (63.95 percent), while in constant 1985 dollars, the increase has been a comparatively modest $392 or 15.41 percent (see Figure 6).

Average Undergraduate Resident Tuition and Fees, 1995-96 and 1996-97 (national and by state)[15]

- Table 1 (page 9) summarizes average tuition and fee charges for fall 1995 and fall 1996, and the map of the states (page 10) shows the range of tuition for fall 1996. The map shows that the top two-thirds of the total average tuition range for fall 1996 is focused in the Northeast, which is consistent with past years' findings. Thirty states (including the District of Columbia) reported averages below the $3,000 mark, which shows little change from the fall 1995 distribution.
- Nearly half the states (42 percent) raised tuition less than $100 between fall 1995 and fall 1996; 79 percent of the states raised tuition less than $200. ◆

Table 1. Average Undergraduate Resident Tuition and Fees, 1995-96 and 1996-97 (national and by state)

State	Fall 1995	Fall 1996	Dollar Change	Percent Change	Rank* Fall 1996
Alabama	$ 2,223	$ 2,388	$ 165	7.42%	29
Alaska	$ 2,274	$ 2,263	$ -11	-0.48%	33
Arizona	$ 1,950	$ 2,009	$ 59	3.03%	45
Arkansas	$ 2,058	$ 2,232	$ 174	8.45%	34
California	$ 2,875	$ 2,822	$ -53	-1.84%	22
Colorado	$ 2,493	$ 2,581	$ 88	3.53%	26
Connecticut	$ 3,802	$ 4,057	$ 255	6.71%	7
Delaware	$ 4,015	$ 4,207	$ 192	4.78%	5
District of Columbia	$ 1,118	$ 1,502	$ 384	34.35%	51
Florida	$ 1,823	$ 1,889	$ 66	3.62%	48
Georgia	$ 2,100	$ 2,221	$ 121	5.76%	35
Hawaii	$ 1,439	$ 2,156	$ 717	49.83%	37
Idaho	$ 1,698	$ 1,751	$ 53	3.12%	50
Illinois	$ 3,446	$ 3,620	$ 174	5.05%	15
Indiana	$ 3,095	$ 3,241	$ 146	4.72%	19
Iowa	$ 2,565	$ 2,655	$ 90	3.51%	25
Kansas	$ 2,160	$ 2,275	$ 115	5.32%	32
Kentucky	$ 2,036	$ 2,126	$ 90	4.42%	40
Louisiana	$ 2,149	$ 2,155	$ 6	0.28%	38
Maine	$ 3,560	$ 3,743	$ 183	5.14%	12
Maryland	$ 3,631	$ 3,905	$ 274	7.55%	10
Massachusetts	$ 4,281	$ 4,166	$-115	-2.69%	6
Michigan	$ 3,606	$ 3,725	$ 119	3.30%	13
Minnesota	$ 3,109	$ 3,335	$ 226	7.27%	16
Mississippi	$ 2,466	$ 2,504	$ 38	1.54%	27
Missouri	$ 3,076	$ 3,274	$ 198	6.44%	18
Montana	$ 2,358	$ 2,453	$ 95	4.03%	28
Nebraska	$ 2,291	$ 2,382	$ 91	3.97%	30
Nevada	$ 1,830	$ 1,920	$ 90	4.92%	47
New Hampshire	$ 4,635	$ 4,843	$ 208	4.49%	3
New Jersey	$ 4,397	$ 4,588	$ 191	4.34%	4
New Mexico	$ 1,938	$ 2,023	$ 85	4.39%	44
New York	$ 3,619	$ 3,683	$ 64	1.77%	14
North Carolina	$ 1,634	$ 1,832	$ 198	12.12%	49
North Dakota	$ 2,249	$ 2,381	$ 132	5.87%	31
Ohio	$ 3,586	$ 3,746	$ 160	4.46%	11
Oklahoma	$ 1,819	$ 1,961	$ 142	7.81%	46
Oregon	$ 2,991	$ 3,303	$ 312	10.43%	17
Pennsylvania	$ 4,765	$ 5,034	$ 269	5.65%	2
Puerto Rico	$ 993	$ 974	$ -19	-1.91%	52
Rhode Island	$ 3,905	$ 3,952	$ 47	1.20%	9
South Carolina	$ 3,101	$ 3,210	$ 109	3.51%	20
South Dakota	$ 2,506	$ 2,726	$ 220	8.78%	23
Tennessee	$ 1,988	$ 2,067	$ 79	3.97%	42
Texas	$ 1,866	$ 2,163	$ 297	15.92%	36
Utah	$ 2,018	$ 2,051	$ 33	1.64%	43
Vermont	$ 5,804	$ 6,124	$ 320	5.51%	1
Virginia	$ 3,907	$ 3,960	$ 53	1.36%	8
Washington	$ 2,730	$ 2,835	$ 105	3.85%	21
West Virginia	$ 2,024	$ 2,097	$ 73	3.61%	41
Wisconsin	$ 2,588	$ 2,721	$ 133	5.14%	24
Wyoming	$ 2,005	$ 2,144	$ 139	6.93%	39
U.S.	$ 2,811	$ 2,966	$ 155	5.50%	

*1=highest — Low: $974 (Puerto Rico) — Median: $2,543 — High: $6,124 (Vermont) — Range: $5,150
Source: College Board Survey Research Files, 1995-96 and 1996-97
Notes: Sample controlled for institutions reporting consistently over two-year period.
Average tuition and fee charges weighted by full-time equivalent enrollment.

Table 2. Dollar Increases, Average Undergraduate Resident Tuition and Fees, Fall 1995 to Fall 1996

Range of Dollar Increase, Fall 1995 to Fall 1996	Number of States*
Less than $50	8
$50-$100	12
$100-$200	19
More than $200	11

*Includes DC and Puerto Rico

Map. State Higher Education Appropriations, Percentage Change, FY95 to FY97

NOTE: Because 20 states operate on biennial budget cycles, a two-year analysis provides a more even comparison of all states.
SOURCE: SHEEO, State Higher Education Appropriations 1996-97, March 1997

References

[1] The College Board Annual Survey, 1996-97 (research files).

[2] Ibid, The College Board Annual Survey, 1995-96 (research files).

[3] Ibid.

[4] National Center for Education Statistics, *Digest of Education Statistics, 1996*. Tables 309-310.

[5] NCES, *State Higher Education Profiles*, Seventh Edition. Page 4; Integrated Postsecondary Education Data System (IPEDS) unpublished data, 1994-95.

[6] *Digest of Education Statistics, 1996*, op cit.

[7] American Council on Education, *Campus Trends, 1996*. Tables A10 and A13.

[8] Research Associates of Washington, *Inflation Measures for Schools, Colleges, and Libraries: 1996 Update*. Pages 4-5.

[9] National Governors' Association/National Association of State Budget Officers, *The Fiscal Survey of the States*, November 1996. Pages vi-vii.

[10] Center for Higher Education, Illinois State University, Grapevine, October 22, 1996. (WWW posting).

[11] *Digest of Education Statistics, 1996*, op cit.

[12] *Digest of Education Statistics, 1996*, op cit.; Inflation Measures, op cit.

[13] Research Associates of Washington, *State Profiles: Financing Public Higher Education 1978 to 1996, Trend Data*. Pages 102-103.

[14] Inflation Measures, op cit.

[15] The College Board Annual Survey, 1996-97, op cit.

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Deferred Maintenance

Overview

After a decade or more of difficult fiscal choices because of lagging state support, public colleges and universities are now left with buildings and support facilities that are in need of repair. Deferring maintenance has been a way to free scarce state dollars to fund other priorities such as the cost of instruction, or outside higher education, the cost of prison construction or health care.

What makes deferred maintenance a salient issue for AASCU members now?

- Public colleges* have the highest ratio of deferred maintenance to facility replacement value and one of the lowest spending rates on deferred maintenance.
- Spending on operation and maintenance of physical plant at public colleges and universities has declined over the past decade when adjusted for inflation.
- At the same time, public colleges surveyed reported more square feet currently in construction than in renovation.

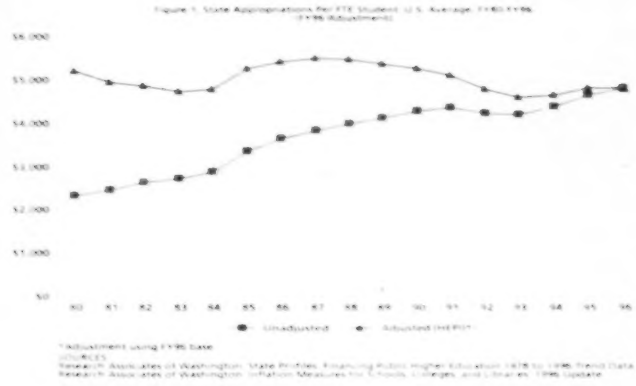
State and federal policy developments also have an impact on campus maintenance activity. A number of states are revisiting their capital budgeting policy, developing approaches that favor longer range planning and the creation of funding mechanisms for facility preservation. At the federal level, compliance with mandates such as those in the Americans with Disabilities Act continues to affect maintenance funding and priorities.

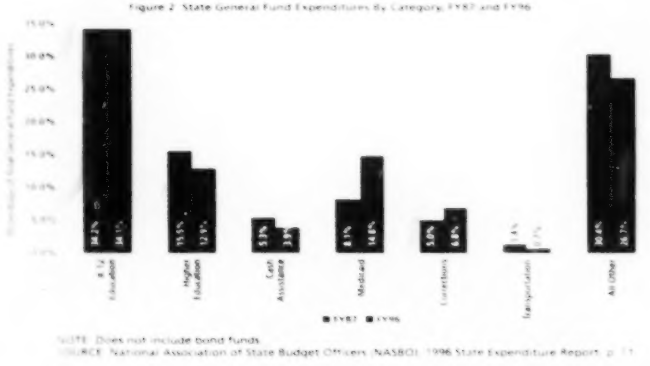
With nearly all states experiencing better than expected revenue collections, it is an opportune time to consider seeking one-time appropriations to address deferred maintenance.

- Maintenance needs can effectively be helped by one-time expenditures, unlike many other base budget items.
- States can reduce additional accumulation and future increased cost of deferred maintenance by investing now.

Highlights

- A 1995 study estimates that America's colleges and universities have facilities totaling 4 billion gross square feet, an increase of 33 percent over 1988 estimates and 304 percent over 1960 estimates (see Figure 1). Public colleges claim the greatest share of this total**—20.3 percent.[1]
- According to 1995 estimates, deferred maintenance*** at the nation's higher education institutions stands at $26 billion, an increase of 26.8 percent over 1988 estimates. As with gross square footage, public colleges claim the largest share-$5.9 billion (see Figure 2).[2]
- Overall, public colleges and universities tend to have higher levels of deferred maintenance than their private college counterparts, which is attributed in part to private institutions having greater flexibility in budgeting practices and greater access to reserve funds. One-third (33 percent) of public colleges responding to a 1995 survey conducted by The Association of Higher Education Facilities Officers (APPA), The National Association of College and University Business Officers (NACUBO), and Sallie Mae indicated deferred maintenance funding needs of $15 million or more, compared with 25 percent of private master's institutions and 16.1 percent of private, four-year institutions.[3]
- Nearly two-thirds (62.2 percent) of public colleges





* In this report, refers to public four-year/master's institutions.

** In this report, the following institutional types are used: public research, private research, doctoral, public four-year/master's, private master's, private four-year, public/private Historically Black Colleges and Universities (HBCUs), two-year colleges, and medical colleges.

*** Refers to "an identifiable backlog of major maintenance projects unfunded in operating budgets and deferred to a future budget cycle." Note: Estimated totals for deferred maintenance in this report include facilities only; infrastructure (circulation/utilities/parking systems, landscaping, etc.) is not included.

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May 1997

responding to the APPA/NACUBO/Sallie Mae survey indicated that the amount of their deferred maintenance has increased since 1988, compared with 49.5 percent of all institutions participating in the survey.[4]

- Education and general (E&G)* spending for physical plant operation and maintenance has declined over the last decade at public colleges and universities (adjusted for inflation), as has its share of total E&G budgets.[5]
- According to the APPA/NACUBO/Sallie Mae survey, public colleges report one of the lowest spending rates for remedying accumulated deferred maintenance, with median annual expenditures equal to 3.3 percent of total funding needed for such maintenance.

* Refers to the sum of current funds expenditures on instruction, research, public service, academic support, student services, institutional support, operation and maintenance of plant, and awards from restricted and unrestricted funds.

** Current replacement value is not the same as book/insurance value, because book/insurance value does not account for the full value of code compliance and other functional requirements.

Findings

1. How Serious Is the Problem?—Deferred Maintenance Indicators

The above data paint a striking picture of the deferred maintenance situation at the nation's colleges and universities, particularly those in the public sector. Dollar totals alone, however, do not fully answer the question of how serious the problem is for a given institution or sector. The two indicators below have been developed for that purpose, and they strongly suggest that the problem is more serious for public institutions than for their private college counterparts.

Facilities Condition Index (FCI)

This measure is the ratio of an institution's deferred maintenance to the current replacement value** of its facilities, which expresses the depleted value of an institution's physical plant. For example, a campus building with a current replacement value of $2 million and $100,000 worth of deficiencies would have an FCI of .05, or 5 percent of total replacement value. According to commonly accepted industry benchmarks, an FCI of 5 percent or less is considered "good," an FCI of 5 to 10 percent is "fair," and an FCI above 10 percent represents "poor" facility condition.

Determining an institution's FCI provides a useful benchmark for setting goals to reduce accumulated deferred maintenance and is a means for comparison with peer institutions. Industry professionals strongly recommend that an institution's FCI be calculated on the basis of a thorough facilities audit.[6]

According to the APPA/NACUBO/Sallie Mae survey:

- The median FCI for all institutions surveyed was 7 percent ("fair").
- The median FCI for public colleges surveyed was 9 percent (almost "poor") (see Figure 3).[7]
- According to the survey, 30 percent of public colleges reported an FCI well within the "poor" range (15 percent or higher), compared with 20.6 percent of public research universities, 19.3 percent of private master's institutions, and 22.5 percent of all institutions.[8]
- Public colleges tend to assess the condition of their facilities less frequently than institutions in other sectors. The survey reports that public colleges conduct facilities audits an average of once every 2.2 years, compared with an average of one per year for all institutions surveyed.[9]

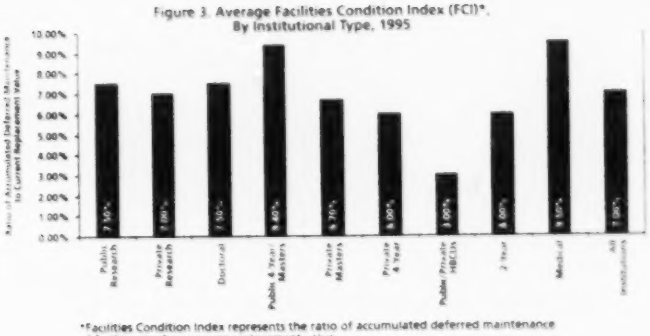
Deferred Maintenance Ratio (DMR)

This measure is the ratio of an institution's accumulated deferred maintenance to its current fund expenditures, which gauges the magnitude of an institution's deferred maintenance relative to its total resource base. For example, an institution with deferred maintenance totaling $5 million and current fund expenditures totaling $45 million would have a DMR of 11 percent (.11).

The APPA/NACUBO/Sallie Mae survey found that:

- Public colleges had the highest median DMR (18 percent), compared with 11.5 percent for all colleges.[10]
- More than one-quarter (28.4 percent) of public colleges responding to the survey had a DMR of 33 percent or higher, compared with 11.1 percent of public research universities, 18 percent of private master's institutions, and 19.7 percent of all institutions.[11]

Figure 3. Average Facilities Condition Index (FCI)*, By Institutional Type, 1995



*Facilities Condition Index represents the ratio of accumulated deferred maintenance of facilities to their current replacement value.
Source: APPA/NACUBO/Sallie Mae, A Foundation to Uphold, 1996

2. What Are Current Trends in Physical Plant/Maintenance Spending at Public Colleges and Universities?

Given the evidence that public colleges and universities face significant challenges related to deferred maintenance, do current trends suggest an improving or worsening problem? Continued facility growth, combined with physical plant spending that fails to keep pace with inflation, indicates that

public universities may face even greater deferred maintenance challenges in coming years.

- Construction is taking priority over renovation on campuses. Public colleges responding to the APPA/NACUBO/Sallie Mae survey indicated that they currently have more square footage in construction than in renovation, and thus are spending more on building new than on rebuilding the old. By contrast, private, four-year colleges participating in the survey indicated that they had more square footage in renovation than in construction.[13]
- Spending on physical plant operation and maintenance (adjusted for inflation) has declined at public institutions at the same time that construction outpaces renovation and gross square footage grows. Education and general expenditures for plant operation and maintenance at public, four-year colleges has declined 2.1 percent in constant (inflation-adjusted) dollars between Fiscal Year 1985 and Fiscal Year 1994. By contrast, inflation-adjusted E&G expenditures on plant operation and maintenance increased 15.2 percent for private universities and 14.5 percent for private, four-year colleges over the same period (see Figure 4).[14]
- Public colleges have one of the lowest spending rates for remedying deferred maintenance needs. According to the APPA/NACUBO/Sallie Mae survey, public colleges reported median spending of $300,000 in 1993-94 for deferred maintenance, which is 3.3 percent of the median level of funding needed to remedy deferred maintenance at those institutions ($9.2 million). At that rate, it would take these institutions almost 31 years to satisfy current deferred maintenance funding needs, assuming no additional deferral of maintenance or loss of purchasing power. This compares with an average spending rate of 3.6 percent for public research universities, 3.9 percent for private master's institutions, and 4.4 percent for all institutions.[15]

3. What Are the State and Federal Policy Implications for Deferred Maintenance?

Since federal and state funds are estimated to comprise nearly half of construction and renovation funds at public colleges and universities[16], the issue of deferred maintenance has inevitable policy implications. At the state level, the issues include institutional flexibility and dedicated revenue sources to finance improvements, while issues at the federal level center around the costs of regulatory compliance.

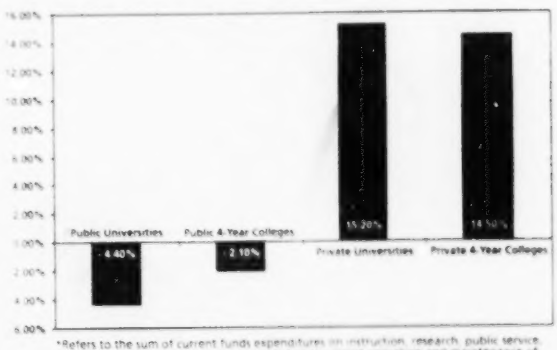
- Facility maintenance funding is often subjected to intense competition in state budgets. According to a recent survey by the National Association of State Budget Officers (NASBO), nearly one-third (32.5 percent) of states responding indicated that they do not have a mechanism for setting aside funds to preserve facilities. The upshot of this is that absent a special designation, maintenance funds are sometimes sacrificed to balance budgets when times are tight.[17]
- Over the past five years, a number of states have modified their capital budgeting processes in favor of longer range planning and establishing funding mechanisms for facility preservation. Examples include: Colorado, where statute calls for the transfer of funds from the general fund to a controlled maintenance trust fund; Arizona, where a building renewal formula has been adopted; Missouri, where voters approved the establishment of a facilities maintenance reserve fund (equivalent to 10 percent of general revenue); and Washington, where a maintenance backlog reduction program has been established.[18]
- State policy innovations have had a positive impact on deferred maintenance efforts for a number of public institutions and systems. In general, states and their higher education institutions seem hesitant to engage in bonding for maintenance; identifying and dedicating revenue streams appears to be the preferred option.

  North Carolina: Three years ago, the state established a separate budget line for deferred maintenance, which has provided much-needed assistance in reducing the backlog of projects at the state's universities.[19]

  Arkansas: In two recent budget cycles, debt service proceeds from the state's college savings bond program have been allocated for university maintenance using a computer-modeled formula. Also, separate line items for funded depreciation and maintenance of new space have been created within the universities' base budgets. Institutions may use funded depreciation dollars to establish maintenance reserve funds for future needs.[20]

  Pennsylvania: A dedicated stream of funds for deferred maintenance has been created here using the proceeds of a 2 percent realty transfer tax; the annual yield is approximately $5 million.[21]
- At the federal level, regulatory compliance, particularly in relation to the Americans

Figure 4. Education and General Expenditures* for Operation and Maintenance of Physical Plant, FY85-FY94 Percentage Change (in constant FY94 dollars**)



*Refers to the sum of current funds expenditures on instruction, research, public service, academic support, student services, institutional support, operation and maintenance of plant and awards from restricted and unrestricted funds (therefore excludes auxiliary/revenue facilities such as bookstores and dormitories)
**Adjusted by HEPI (FY94 base)
Source: NCES, Digest of Education Statistics (1994, 1996)

with Disabilities Act (ADA), claims a portion of colleges' regular and deferred maintenance spending. Public colleges and universities must be particularly aware of these issues, since they are held to different standards of ADA compliance than their private counterparts. The APPA/NACUBO/Sallie Mae survey found that 21.5 percent of public colleges reported being named in an ADA-related complaint or lawsuit, compared with 7.4 percent of private master's institutions and 17.9 percent of all institutions. Also, public colleges report a median ADA compliance estimate that is nearly twice as high as that for private, four-year and master's institutions.[37] ◆

References

[1] APPA: The Association of Higher Education Facilities Officers, The National Association of College and University Business Officers (NACUBO), and Sallie Mae. *A Foundation to Uphold: A Study of Facilities Conditions at U.S. Colleges and Universities, 1996* (p. 89).

Casey, John M. "Facilities Management in Higher Education: Doing More with Less," presented to the Institute of Higher Education, University of Georgia, 1994 (p. 7).

[2] *A Foundation to Uphold*, op. cit., page 127.

[3] Ibid, page 39.

[4] Ibid, page 124.

[5] National Center for Education Statistics (NCES). *Digest of Higher Education, 1996* (pp. 351-355).

NCES. *Digest of Higher Education, 1994* (pp. 340-343).

[6] APPA. *Facilities Stewardship in the 1990's*, 1991 (pp. 10-12).

[7] *A Foundation to Uphold*, op. cit., page 130.

[8] Ibid.

[9] Ibid.

[10] Ibid, page 143.

[11] Ibid, page 129.

[12] Ibid.

[13] Ibid, page 105.

[14] *Digest of Higher Education, 1994 and 1996*, op. cit.

[15] *A Foundation to Uphold*, op. cit., pages 126, 139.

[16] Ibid, page 33.

[17] National Association of State Budget Officers. *Capital Budgeting in the States, 1997* (preliminary draft).

[18] Ibid.

[19] Information obtained from AASCU state relations contacts (April 1997).

[20] Ibid.

[21] Ibid.

[22] *A Foundation to Uphold*, op. cit., page 148.

State Fiscal Conditions

Overview

State finances remain at their strongest point in years, fueled by steady economic growth at the local, state and national levels. For the most part, states are taking in more than expected in revenues and spending less than expected on welfare and health care, allowing them to hold the line on total spending and build budget reserves.

What has this meant for higher education? State spending for public colleges and universities has improved significantly over the past couple of years, but remains lower than Fiscal Year 1980 levels when adjusting for inflation and enrollment growth. Also, the share of general funds and tax revenues dedicated to public higher education has declined over the past decade due to increased priority for Medicaid and corrections.

Moderation in budget decision-making over the past couple of years has also contributed to healthy balance sheets for most states. Given a largely satisfied public and the potential for federal cuts and/or a slowing economy, policymakers have been conservative in their revenue estimates and hesitant to engage in substantial long-term spending, deep tax-cutting, or major restructuring of tax systems. The executive director of the National Governors' Association recently summarized this approach:

> "Faced with the unprecedented challenge of a shift of responsibility from the federal government to the states and a shared national goal of achieving a balanced budget, governors are embracing the guiding principles of efficiency, austerity, and improved management in developing state budgets."[1]

Higher education is referred to by many as "the balance wheel of state finances," receiving relatively modest increases in good times and disproportionate cuts in tough times. The findings below support that notion, and suggest that public colleges may want to take their cue from states and cast a wary fiscal eye to the horizon.

Highlights

- Public colleges and universities have benefited from the recent strength of state finances. Higher education appropriations grew 4.8 percent in FY97 over FY96 and 8.5 percent between FY95 and FY97. As with economic performance, western states generally fared better than eastern states in appropriations over the two-year period.[2]
- Higher education continues to struggle for priority in state budgets. The share of general fund expenditures dedicated to higher education is holding steady at just under 13 percent, following a consistent decline over the past five years. Higher education remains the third-largest area of both general fund and total expenditures by states, behind K-12 education and Medicaid.[3]
- States' efforts to fund higher education have not kept pace with their revenue collection efforts. Between FY87 and FY96, the ratio of higher education appropriations per full-time equivalent (FTE) student to total state revenues collected per capita fell in every state but two.[4]
- State fiscal conditions are the strongest they have been in years, the result of a good economy and cautious budgeting decisions:
  - State expenditures grew 4.5 percent in FY97, slightly above the rate of inflation; an increase of 3.6 percent is expected for FY98.[5]
  - The number of states enacting mid-year budget cuts has fallen markedly in recent years, from 35 in FY92 to seven in FY97. The magnitude of these cuts has fallen, from $4.4 billion in FY92 to $265 million in FY97.[6]
  - Nearly three-quarters of the states (72 percent) saw revenue collections exceed their estimates in FY96. In FY97, nearly all states will meet or exceed their revenue estimates, and 11 states are expecting collections to top even their most optimistic estimates.[7]
  - States are maintaining healthy budget balances as a hedge against federal funding cuts and/or an economic downturn. Budget balances as a percent of total state expenditures dropped slightly from 6.9 percent in FY96 to 6.2 percent in FY97, but remain above the range recommended by analysts.[8]
- State economic conditions are good (with few exceptions), reflecting sustained growth in the national economy. Population, employment, and personal income indicators reveal that the strongest performance is focused in the West, with the weakest growth concentrated in the Northeast.

Findings

1. Why Are State Finances Looking So Good?

Strong Economy

- Employment/Unemployment. Between March 1996 and March 1997, non-farm payrolls grew in every state except Hawaii, and western states claimed six of the 10 highest one-year growth rates. Over the same period, unemployment fell in 44 states, rose in just three states,

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and remained constant in three states. In March 1997, 35 states reported unemployment rates below the national rate of 5.2 percent.[9] Average annual employment growth between now and 2005 is projected to lag its 1983-92 pace (from 2.0 percent to 1.5 percent), but average annual growth in western and southeastern states is projected to be higher than the national rate.[10]

- Personal Income. Nationally, total personal income rose 5.4 percent in 1996 over 1995 and per capita personal income rose 4.5 percent over the same period, both significantly above the inflation rate for personal consumption (2.2 percent). In total personal income, the Plains states posted the strongest one-year gain (7.3 percent), followed by states in the Rocky Mountain and Southwest regions (6.4 percent and 6.2 percent, respectively).[11]
- Index of State Momentum. This measure, which combines the most recent data on one-year changes in employment, personal income, and population, is used to compare state growth rates with the national rate (which is set at zero). In each of the last three fiscal quarters, western states have occupied most of the top 10 slots, averaging two percentage points above the national benchmark. By contrast, the bottom half of the index is heavily populated by northeastern states.[12]
- Gross State Product (GSP). This indicator represents the market value of goods and services produced by labor, and property located in a state. Adjusted for inflation, total GSP grew 2.5 percent in 1992 (the most recent year for which data are available), with states in the Plains and the West among the fastest growing. Projections through 2005 show that average annual GSP growth will slow from the previous decade's average (2.9 percent to 2.2 percent), but that states in the West and the Southeast will outpace the national average.[13]

*** The Higher Education Price Index (HEPI) is a measure of inflation based on the cost of key goods and services purchased by colleges and universities, including salaries/fringe benefits, contracted services, supplies and materials, equipment, library acquisitions, and utilities.**

Map. State Higher Education Appropriations, Percentage Change, FY95 to FY97

NOTE: Because 20 states operate on biennial budget cycles, a two-year analysis provides a more even comparison of all states.
SOURCE: SHEEO, State Higher Education Appropriations 1996-97, March 1997

Caution in Statehouses

A robust economy accounts for only part of states' fiscal health, with their budget policies and practices also playing a central role. Even though overall growth continues at a steady pace and does not show immediate signs of slowing, state policymakers are being cautious with their revenue estimates and conservative with their purse strings. Over the past couple of years, governors and legislators have been especially hesitant to make significant long-term fiscal commitments, opting instead for relatively modest one-time expenditures. This approach stems from concern over potential cutbacks in federal funding and an eventual economic downturn, and has created the best year-end balances in state coffers since 1980.

- Revenue Collections vs. Estimates. In recent years, state budget offices have developed a track record of estimating economic growth (and thus revenues) more conservatively than the private sector. Given steady economic growth, the tendency to estimate cautiously has been a boon for state budgets. Between FY92 and FY96, the difference between estimates made when adopting budgets and actual collections changed from a shortfall of $8.5 billion to a surplus of $6 billion—a five-year increase of 171 percent. Over the same period, the number of states reporting higher than expected revenue collections more than tripled, from 11 in FY92 to 36 in FY96. For FY97, 47 states are looking for collections to exceed estimates, and 11 states look for collections to top their most optimistic projections.[14]
- Expenditures. Annual budget increases also reflect the prevailing conservative mood in state finance. The rate of increase for overall state spending for FY97 remains unchanged from the previous year at 4.5 percent, but is projected to fall to 3.6 percent in FY98. If the FY98 estimate holds, it will mark the third-lowest increase for state budgets in 20 years.[15]
- Year-End Balances. Better than expected revenue collections has meant bigger budget reserves, the most commonly cited indicator of state fiscal health. The size of these reserves is a factor in the determination of bond ratings, and financial analysts recommend a minimum reserve range equaling 3 to 5 percent of total state expenditures. For FY97, state budget balances stand at $24.2 billion, or 6.2 percent

of total state expenditures. This represents a slight retreat from a high of 6.9 percent in FY96, but balances remain at their highest level since 1980.[16]

2. Higher Education and State Finances

For public colleges and universities, the result of states' cautious budgeting over the past several years has been relatively modest funding increases, above the rate of inflation but not enough to compensate for the deep cuts of the early 1990s. Analysts warn that this recent return to funding increases should not be interpreted as a new trend of rapidly growing state appropriations, and several indicators reveal troubling long-term trends for higher education as a player in state budgets.

Higher Education as a Competitor—Holding On or Losing Out?

Higher education has always had to compete for scarce resources with other public services—such as K-12 education, welfare, corrections, and transportation. Even though higher education appropriations have increased in recent years, public colleges and universities have been losing ground as a competitor for state funds. The main beneficiaries have been Medicaid and corrections, but a relative newcomer is the tax cut. Many state budget watchers paint a grim picture for higher education's place in the state funding picture. According to Hal Hovey, editor of *State Policy Reports*, "The fiscal priority for higher education is likely to remain low, with a continued decline in the percentage of state resources devoted to subsidizing public educational institutions."[17]

- Higher Education Appropriations. Overall, state appropriations for higher education increased from $44.4 billion in FY96 to $46.5 billion in FY97 (4.8 percent), with 43 states reporting funding increases. The two year period shows a similar picture, with FY97 appropriations 8.5 percent higher than FY95 levels and 44 states reporting funding gains (see Map and Table 1).[18]

  While nominal dollar appropriations (not adjusted for inflation) have increased in recent years, they have failed to keep pace with enrollments and inflation over the long term. Adjusting for inflation using the Higher Education Price Index (HEPI)*, state and local appropriations per FTE student have fallen from $5,201 per FTE in FY80 to $4,801 per FTE in FY96, a decline of 7.7 percent (see Figure 1).[19]

- Tax Cuts and Higher Education. State leaders have taken advantage of current conditions to push tax cuts, which play a role in the competition for increased state revenues. Fiscal Year 1997 marked the third consecutive year of net tax reductions in the states, with 27 states enacting reductions of $4.1 billion. If adopted

Table 1. State Higher Education Appropriations (in thousands of dollars), Percentage Change, FY95 to FY97

State	FY95 Appropriation	FY97 Appropriation	Percentage Change
Alabama	$ 1,026,220	$ 962,449	-6.21%
Alaska	171,580	169,378	-1.27%
Arizona	664,091	731,762	10.19%
Arkansas	428,862	472,467	10.17%
California	4,838,319	5,816,980	20.23%
Colorado	584,034	659,055	13.79%
Connecticut	499,499	538,771	7.86%
Delaware	137,432	148,471	8.03%
Florida	1,701,305	2,016,303	18.54%
Georgia	1,124,629	1,302,566	15.82%
Hawaii	382,648	414,121	8.24%
Idaho	227,635	247,778	8.83%
Illinois	1,902,006	2,132,544	12.12%
Indiana	923,508	1,030,688	11.60%
Iowa	642,632	711,240	10.68%
Kansas	509,135	531,042	4.30%
Kentucky	657,609	706,655	7.46%
Louisiana	589,578	645,904	9.55%
Maine	174,523	182,613	4.64%
Maryland	789,032	850,040	7.73%
Massachusetts	744,803	844,263	13.35%
Michigan	1,607,578	1,756,823	9.28%
Minnesota	1,030,819	1,091,639	5.90%
Mississippi	617,024	669,000	8.42%
Missouri	676,043	775,094	14.65%
Montana	123,297	126,413	2.53%
Nebraska	369,565	401,750	8.71%
Nevada	194,939	234,256	20.17%
New Hampshire	85,324	82,989	-2.74%
New Jersey	1,271,588	1,397,327	9.89%
New Mexico	437,502	487,390	11.40%
New York	4,124,122	2,805,404	-10.20%
North Carolina	1,723,312	1,852,013	7.47%
North Dakota	144,909	151,900	4.82%
Ohio	1,567,853	1,754,923	11.93%
Oklahoma	540,983	616,700	14.00%
Oregon	434,654	480,702	10.59%
Pennsylvania	1,578,923	1,652,151	4.64%
Rhode Island	122,783	129,952	5.84%
South Carolina	651,526	698,488	7.21%
South Dakota	112,907	118,401	4.87%
Tennessee	896,741	934,487	4.21%
Texas	3,086,919	3,175,774	2.88%
Utah	400,372	457,517	14.27%
Vermont	53,222	54,708	2.79%
Virginia	968,149	1,071,897	10.72%
Washington	942,767	1,075,036	14.03%
West Virginia	303,874	340,178	11.95%
Wisconsin	479,269	466,966	-1.26%
Wyoming	139,271	145,517	4.52%
U.S.	42,855,401	$46,507,624	8.52%

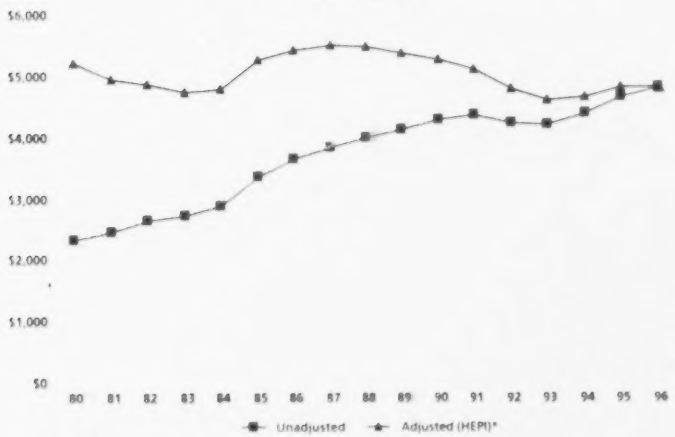
NOTE: Because 20 states operate on biennial budget cycles, a two-year analysis provides a more even comparison of all states.
SOURCE: SHEEO, State Higher Education Appropriations, 1996-97, March 1997.

budgets hold, FY98 will mark an unprecedented fourth year of tax cuts, with an estimated net reduction of $4.4 billion.[37]

As a percentage of total state expenditures, the tax cuts adopted have been relatively modest (1 percent or less per year). While these reductions have had a benign impact in most states, following are examples of states where aggressive tax cutting has adversely affected higher education:

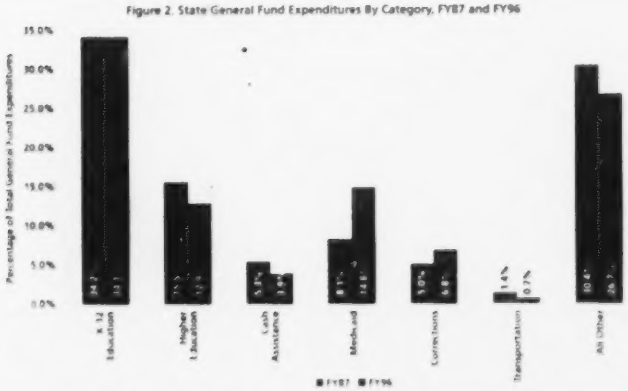
- New York. Leaders here were confronted with a fiscal policy squeeze—residents clamoring for relief from relatively high tax rates amid relatively weak economic performance. Nevertheless, the state in 1995 embarked on a two-year cut in personal income tax rates totaling more than $2 billion. The state has struggled to balance its books and effect the tax cut, and its colleges and universities have helped to pay the price. State appropriations for higher education fell one percent from FY96 to FY97 and 10 percent from FY95 to FY97, while average tuition and fees rose by more than 20 percent in three of the last six years.[38]
- Wisconsin. Here the tax relief was aimed at local property taxes for schools, as the state decided in 1995 to shift two-thirds of the K-12 funding burden to the general fund. In crafting the shift, policymakers banked on a combination of revenue growth from a strong economy and spending restraint to cover its projected impact ($1.25 billion). The challenge of meeting this objective without a tax increase spelled a tough biennium for the state's colleges and universities. State higher education appropriations fell 0.5 percent from FY96 to FY97 and 1 percent from FY95 to FY97, and tuition and fee increases remain above the rate of inflation.[39]

Figure 1. State Appropriations Per FTE Student, U.S. Average, FY80-FY96 (FY96 Adjustment)



*Adjustment using FY96 base
SOURCES
Research Associates of Washington, State Profiles: Financing Public Higher Education 1978 to 1996 Trend Data
Research Associates of Washington, Inflation Measures for Schools, Colleges, and Libraries, 1996 Update

Figure 2. State General Fund Expenditures By Category, FY87 and FY96



NOTE: Does not include bond funds.
SOURCE: National Association of State Budget Officers (NASBO), 1996 State Expenditure Report, p. 11

- Higher Education's Share of State Spending. Higher education's portion of state general fund and total expenditures has fallen significantly over the past decade. Between FY87 and FY96, the portion of state general fund expenditures devoted to higher education fell from 15.5 percent to 12.9 percent. Over the same period, Medicaid (which replaced higher education in FY93 as the second-largest recipient of general funds), saw its portion of general fund expenditures rise from 8.1 percent to 14.8 percent. Similarly, corrections increased its share of general fund spending, from 5.0 percent in FY87 to 6.8 percent in FY96 (see Figure 2).

Total state spending (including federal, bond, and other funds) shows much the same picture. The share of total funds allocated to higher education dropped from 12.3 percent in FY87 to 10.7 percent in FY96, while Medicaid's share nearly doubled (10.2 percent to 20.3 percent) and corrections' share increased more modestly (3 percent to 3.7 percent).[40]

Public colleges and universities face an uphill climb to increase or even maintain their portion of state budgets. States continue to stiffen criminal penalties and sentencing guidelines, causing prison populations (and thus prison construction and spending) to increase. Nearly half the states supplying prison population data to a recent study expected faster growth in 1997 than they experienced in 1996.[41] Also, growth in elementary and

secondary education enrollment, combined with court-mandated funding equalization among districts, will squeeze state budgets. Enrollment in public K-12 schools is expected to rise nearly 10 percent nationally between 1994 and 2006, with double-digit increases projected for 22 states.[15]

Higher Education as "The Balance Wheel of State Finances"

What is behind higher education's sliding priority in state budgets? Political considerations are one factor, as higher education struggles for public and policymaker attention against concerns over crime control and funding for K-12 education. More important, state colleges and universities are at a competitive disadvantage as the only major category of general fund spending to be fully discretionary. Unlike K-12 education, corrections, Medicaid, and welfare, higher education appropriations are not subject to state or federal spending mandates (e.g. Medicaid, K-12 funding formulas) or court-mandated changes in law (e.g. funding equalization for school districts).

As a result, higher education has been described as "the balance wheel of state finances." In other words, higher education funding moves in a cycle of increases to cover inflation and enrollment change in good economic times and disproportionate cuts when budgets are squeezed. If higher education funding moves in such a cycle, it would then follow that over the long term, state effort to fund higher education has lagged overall revenue effort. The data below confirm this:

- State/Local Payment Effort. This indicator measures state and local funding of public colleges and universities relative to tax revenues collected, controlling for changes in enrollment and population. It represents the ratio of state and local higher education appropriations per FTE to total state revenue collected per capita, adjusted for inflation by HEPI.

  Overall, state and local funding efforts for public colleges and universities fell 26 percent between FY87 and FY96. Only two states reported positive change in their funding effort ratio over this period—Wyoming (7.28 percent) and Texas (0.3 percent). The rest of the states posted declines ranging from 2 percent in Wisconsin to 50 percent in New Hampshire (see Table 2).[16]

Conclusion

What does the future hold for states' fiscal conditions? A great deal depends on the performance of the economy, whether or not states continue to budget conservatively, and changes in federal spending related to the unfolding balanced budget agreement. At this point it appears that the first two factors will hold for at least another year and any effects of the third will not be felt for a

Table 2. State Payment Effort*
FY87-FY96
Adjusted for HEPI (FY96 Base)

State in Payment Effort	Percent Change
Alabama	-33.41%
Alaska	-24.04%
Arizona	-14.41%
Arkansas	-26.22%
California	-28.77%
Colorado	-14.13%
Connecticut	-28.07%
Delaware	-31.23%
Florida	-49.34%
Georgia	-13.97%
Hawaii	-30.44%
Idaho	-28.40%
Illinois	-13.30%
Indiana	-26.08%
Iowa	-11.42%
Kansas	-14.71%
Kentucky	-46.60%
Louisiana	-20.24%
Maine	-25.35%
Maryland	-25.27%
Massachusetts	-35.50%
Michigan	-12.27%
Minnesota	-25.76%
Mississippi	-5.54%
Missouri	-3.34%
Montana	-29.12%
Nebraska	-8.73%
Nevada	-17.08%
New Hampshire	-50.44%
New Jersey	-32.93%
New Mexico	-16.72%
New York	-45.57%
North Carolina	-29.18%
North Dakota	-26.02%
Ohio	-20.85%
Oklahoma	-19.32%
Oregon	-31.53%
Pennsylvania	-28.31%
Rhode Island	-41.57%
South Carolina	-37.54%
South Dakota	-20.53%
Tennessee	-35.17%
Texas	0.30%
Utah	-19.98%
Vermont	-36.55%
Virginia	-43.62%
Washington	-30.44%
West Virginia	-33.93%
Wisconsin	-2.01%
Wyoming	7.28%
U.S.	-26.48%

NOTE: Because 20 states operate on biennial budget cycles, a 2 year analysis provides a more even comparison of all states.
SOURCE: SHEEO, State Higher Education Appropriations 1996-97, March 1997

couple of years, so states' finances are likely to remain strong for at least another year or two.

While overall budget conditions appear to be on a steady course, state colleges and universities should monitor a number of fiscal policy developments that could affect them:

- Reorganization/Privatization. In the name of increased efficiency, a number of states (e.g. Virginia and Texas) have shaken up and downsized their bureaucracies and have moved to privatize a number of activities. It remains to be seen how much impact this movement will have on public colleges and universities, but its popularity makes it a trend worth monitoring.[22]
- Voter Initiatives on Taxes. Concern over taxpayers' rights is alive and well, even though opinion polls show voters to be largely content with current policy directions. Popular concern over taxes could be seen in the 1996 elections, when a number of states considered ballot measures to limit property taxes and require "super-majorities" for increasing existing taxes or enacting new ones. While these measures were not universally successful, look for them to resurface on 1998 election ballots.[23]
- Productivity/Outcome-Based Funding. The National Association of State Budget Officers (NASBO) recently cited performance-based budgeting as "the most significant trend in state budgeting."[24] This approach has been applied to higher education in a number of states, including Florida, South Carolina, Missouri, Kentucky, Colorado, Minnesota, Ohio, and Tennessee. However, a recent survey found that approximately one-third of the states (34 percent) consider the adoption of performance-based funding "likely" or "highly likely" within the next five years, but one-quarter of the states indicated that adoption of such measures would be "unlikely" or "highly unlikely." Also, several states using performance-based funding have abandoned or are reviewing their programs.[25]

Where does all of this leave public higher education? Higher education finance experts such as Edward Hines of Illinois State University believe that more belt-tightening is in store for state colleges and universities: "...a return to large gains in dollars and percentages, which were typical of the past, is not forthcoming for higher education."[26] Such a prognosis, combined with evidence that higher education is the balance wheel of state finances, means that the immediate scenario for many AASCU members may be that they struggle to receive enough funding to cover inflation and enrollment growth. ◆

References

[1] National Governors' Association, News Release 57-97, May 7, 1997.

[2] State Higher Education Executive Officers (SHEEO), State Higher Education Appropriations 1996-97, March 1997 (p. 12).

[3] National Association of State Budget Officers, *1996 State Expenditure Report*, April 1997 (p. 11).

[4] Research Associates of Washington, *State Profiles: Financing Public Higher Education 1978 to 1996 Trend Data*, September 1996 (pp. 2-104).

[5] National Governors' Association/National Association of State Budget Officers, *The Fiscal Survey of the States*, April 1997 (p. 3).

[6] Ibid, p. 2.

[7] National Governors' Association/National Association of State Budget Officers, *The Fiscal Survey of the States*, November 1996 (p. 45); *State Budget and Tax News*, Vol. 16 No. 3 (pp. 3-4).

[8] *Fiscal Survey of the States* (1997), op cit., pp. 12-14.

[9] U.S. Department of Labor, Release 97-144, April 30, 1997.

[10] "Regional and State Projections of Economic Activity and Population to the Year 2005," *Survey of Current Business*, July 1995 (pp. 44, 47).

[11] Bureau of Economic Analysis, Release 97-09, April 28, 1997.

[12] Howes, Harold and Howes, Kendra. *CQ's State Fact Finder: Rankings Across America 1997* (p.63); *State Policy Reports*, Vol. 14 No. 24 (p. 12); *State Policy Reports*, Vol. 15 No. 6 (p. 20).

[13] Beemiller, Richard. "Gross State Product 1991-92," *Survey of Current Business*, May 1995 (p.48); "Regional and State Projections of Economic Activity," op cit., p. 44.

[14] *Fiscal Survey of the States* (1996), op cit., p. 45; *State Budget and Tax News*, op cit.

[15] *Fiscal Survey of the States* (1997), op cit., pp. 2-3.

[16] Ibid, pp. 12-14.

[17] *State Policy Reports*, Vol. 14 No. 23 (p. 23).

[18] *State Higher Education Appropriations*, op cit.

[19] *State Profiles*, op cit.; Research Associates of Washington, *Inflation Measures for Schools, Colleges, and Libraries: 1996 Update*, September 1996 (p.4).

[20] *Fiscal Survey of the States* (1996), op cit., pp. 8-10.

[21] National Governors' Association/National Association of State Budget Officers, *The Fiscal Survey of the States*, October 1995 (p. 51); *Fiscal Survey of the States* (1996), op cit., p. 50; *State Higher Education Appropriations*, op cit.; National Center for Education Statistics, *Digest of Education Statistics 1996*, Table 309.

[22] Panzer, Mary. "State Funding of Education in Wisconsin." Presentation to Education Commission of the States, July 1995; *State Higher Education Appropriations*, op cit.; *Digest of Education Statistics*, op cit.

[23] *1996 State Expenditure Report*, op cit.

[9] Boyd, Donald and Davis, Elizabeth. "State Fiscal Brief: State Budgetary Assumptions" (No. 36), Center for the Study of the States, April 1996.

[10] National Center for Education Statistics, *Projections of Education Statistics to 2006*, 1996, Table 46.

[11] *State Profiles*, op cit.

[12] *Fiscal Survey of the States* (1997), op cit., p. 17.

[13] National Association of State Budget Officers. "Information Brief: 1996 State Tax Initiatives" (Vol. 4 No. 2), November 1996.

[14] *Fiscal Survey of the States* (1996), op cit., p. 19.

[15] Burke, Joseph and Serban, Andreea. "State Performance Funding and Budgeting for Public Higher Education: Current Status and Future Prospects," Public Higher Education Program/Rockefeller Institute of Government, April 1997.

[16] *State Higher Education Appropriations*, op cit., p. 10.

National Retention Project

Overview

Launched in 1992 through a grant from Sallie Mae, the AASCU/SallieMae National Retention Project (NRP) has engaged college and university presidents and chancellors in leading their campuses to improve student retention and graduation rates, especially for racial/ethnic minority students. As part of the NRP, AASCU has surveyed member institutions for five years to collect information on their six-year graduation rates for full-time, full-year, degree-seeking students who entered as freshmen and to assess campus conditions affecting these graduation rates.

Using Richard C. Richardson's[1] and Vincent Tinto's studies of the effect of campus culture on retention, the NRP focused on academic institutions as the object of inquiry rather than students.

The 1993, 1995 and 1996 surveys, for example, drew upon Richardson's institutional self-assessment instrument to delineate changes in campus culture.[2] These questions were added because AASCU recognized that institutions must adapt to serve effectively an increasingly diverse and "nontraditional" student body. The project's fundamental premise is that student success is the responsibility of everyone on campus, from the president to faculty and staff, and that the burden of accommodation should not rest with the student alone.

Highlights

- Admission selectivity appears to influence campus graduation rates: institutions with relatively high graduation rates also had more stringent admissions criteria.
- Institutions with higher-than-average overall graduation rates often show higher-than-average rates for racial/ethnic minority students as well.
- In the aggregate, minority graduation rates were higher at public Historically Black Colleges and Universities (HBCUs) than at all other institutional types.
- Among survey respondents, HBCUs showed a greater improvement in overall graduation rates over the four-year period. The rates for these institutions increased by 6.7 percentage points, compared to 2.1 percentage points at all other institutions.
- There appears to be a relationship between campus graduation rates, size and location, with campuses located in rural areas showing higher outcomes.
- Some conditions seem more prevalent at institutions with "high" graduation rates: orientation programs addressing issues of cultural sensitivity, early warning systems identifying students in academic difficulty, administrative monitoring of campus effectiveness in retaining and graduating students, and student outcomes assessment.

Findings

The annual retention survey became central to the project following its first administration in 1992. At that time, AASCU found two things:

- methods of tracking retention varied greatly among campuses and precluded comparison;
- only 41 percent of respondents could provide the comprehensive cohort data required.

Lacking sufficient management information, how well could institutions track students? How could they get an accurate picture of retention problems? How well could they meet emerging accountability standards?[3] As a result of this first survey experience, AASCU formed an additional project purpose—to assist campuses in improving student tracking and reporting capabilities. Finally, it chose to use the six-year graduation rates—i.e., the number of first-time, full-time, full-year, degree-seeking freshmen who graduate within six years of entering college—as a proxy for retention in subsequent activities.

From 1993 to 1996, survey responses increased from 50 percent to 75 percent of members, and campuses providing usable six-year graduation rate data grew from 63 percent to 76 percent of respondents. These facts suggest that student databases are improving and that more AASCU campuses are preparing to meet accountability reporting requirements such as those anticipated under the Student Right-to-Know Act implementation, scheduled for 1998.

After four years, aggregate graduation rate data show slight increases for first-time, full-time degree-seeking freshmen. Other analyses of the data or of institutional groupings bring to light additional, useful information. For instance, when campuses are grouped by admissions standards, types of institutions (Historically Black Colleges and Universities and minority-serving institutions[4] compared to all other institutional types), institutional enrollment size and campus location, new understandings emerge.

Table 2 shows average six-year graduation rates for cohorts in five categories of admissions selectivity. Admission standards were drawn from the 1996 Peterson's Guide to Four-Year Colleges, which bases institutional admissions selectivity on the high school class rankings and admission test scores of the majority of freshmen students enrolled at each institution, and on the percentage of applicants admitted to the colleges.[5]

The six-year graduation rate for "very difficult" institutions was 57.9 percent, compared to 44.8 percent for "moderately difficult" colleges, and just

[1] R. C. Richardson Jr., "A Model of Institutional Adaptation to Student Diversity," in *Achieving Quality and Diversity*, New York: ACE/Macmillan, 1991. Richardson identifies three stages of institutional evolution in addressing student retention: reactive, focusing on recruitment, financial aid, admissions and scheduling; strategic, focusing on outreach, transition, mentoring, enrollment and residence hall activities; and adaptive, focusing on student assessment, offering learning assistance if needed, and adapting curricular content to embrace the variety of learning styles inherent in diverse student bodies. The adaptive stage is considered the most advanced, integrative stage.

[2] R.C. Richardson, Jr. D. A. Matthews, and J. E. Finney, *Improving State and Campus Environments for Quality and Diversity: A Self-Assessment*. Denver: Education Commission of the States, 1992.

[3] Specifically, those anticipated in the Student Right-to-Know Act reporting requirements to be implemented by the U.S. Department of Education in 1998.

[4] By definition of the U.S. Department of Education, minority-serving institutions (in addition to those with historical designation such as

33.3 percent for "minimally difficult" colleges. Graduation rates for minority students were also generally higher at more selective institutions. Admission selectivity appears to have some influence on graduation rates, as the institutions with relatively high graduation rates also had more stringent admissions criteria.

Data comparing six-year graduation rates in 1993 and 1996 at minority-serving institutions and all other institutions within the AASCU sample appear in Figure 1. In both years, although the total six-year graduation rates at other institutions exceeded those at minority-serving institutions, outcomes for minority students were similar in both years and at both types of institutions. However, minority graduation rates were higher at public Historically Black Colleges and Universities (HBCUs) than at all other institutional types (see Table 2). Additionally, HBCUs showed a greater improvement in overall graduation rates over the four-year period. The rates for these institutions increased by 6.7 percentage points, compared to 2.1 percentage points at all other institutions.

Institutions with higher-than-average overall graduation rates often show higher-than-average rates for racial/ethnic minority students as well. On the 1996 survey, 70 institutions reported six-year graduation rates at or above 45 percent. The overall average graduation rate for these campuses was 55.6 percent, with an overall average of 57.3 percent for white students and of 43.5 percent for racial/ethnic minority students. Twenty-four of these campuses reported that ethnic/minority students comprised at least 9 percent of their graduating classes. On 21 of these campuses, graduation rates for whites were higher than for minority students, with an average differential of 12.5 percentage points. On three campuses, just the opposite was true: graduation rates for racial/ethnic minority students exceeded those of white students by 0.8 to 4.9 percentage points.

Graduation rates also differ by campus size and geographic location. Table 3 shows that campuses located in rural areas have higher graduation rates than those in metropolitan and urban areas. Table 4 suggests that a small or medium-sized campus environment may be beneficial to student retention.

Sixty-two campuses

Table 1. Six-Year Graduation Rates for First-Time, Full-Year, Full-Time Freshmen in Degree-Seeking Programs

	1993 (Fall 1986 Freshmen Cohort)	1994 (Fall 1987 Freshmen Cohort)	1995 (Fall 1988 Freshmen Cohort)	1996 (Fall 1989 Freshmen Cohort)
Estimated Number of Surveyed Institutions	380	380	380	379
Number of Respondents	188	200	258	283
Number of Respondents with Usable Data	119	165	194	216
Survey Response Rate (1)[1]	49.5%	52.6%	67.8%	74.7%
Survey Response Rate(2)[2]	31.3%	43.4%	51.0%	57.0%
Six Year Graduation Rates for First-Time, Full-Time, Degree-Seeking Freshmen				
Overall	40.6%	40.8%	43.2%	42.7%
Male	36.7%	35.8%	38.6%	38.0%
Female	44.0%	43.6%	46.0%	45.3%
Non-Resident Alien	38.3%	37.1%	34.6%	36.3%
Black, Non-Hispanic	29.1%	28.1%	31.7%	30.4%
American Indian/Alaska Native	26.9%	24.6%	29.0%	28.3%
Asian/Pacific Islander	42.6%	41.4%	39.5%	40.6%
Hispanic	29.7%	29.5%	28.2%	29.3%
All Minority Students[3]	31.1%	30.1%	32.0%	31.9%
White, Non-Hispanic	43.4%	41.7%	45.6%	44.9%

[1] Based on the total number of responding institutions.
[2] Based on number of institutions with usable graduation rate data for first-time, full-time, degree-seeking freshmen.
[3] Does not include non-resident alien students.

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HBCUs) are those whose student body is comprised at least 50 percent of students from racial/ethnic minority groups.

[5] The admissions selectivity levels for AASCU survey respondents were: *noncompetitive* (enrollment open to nearly all who apply, regardless of high school class rank or admission test scores); *minimally difficult* (up to 95 percent of applicants accepted for admission); *moderately difficult* (up to 85 percent of the applicants accepted); *very difficult* (about 60 percent of applicants accepted). None of the NRP survey respondents were in the *most difficult* category (30 percent or less of applicants accepted).

[6] Based on Richardson's three stages of institutional development, described earlier.

responded to the survey for four consecutive years. Table 3 shows that their aggregate six-year graduation rates did not change appreciably, although there was a slight (3.8 percentage points) increase in graduation rates for black students, and women continued to have higher six-year graduation rates than men, by 6 to 8 percentage points.

Among these 62 institutions, however, eight campuses showed steady improvement in average graduation rates across the four years of surveys. The average overall graduation rate reported by these institutions increased from 42.5 percent in 1993 to 52.8 percent in 1996 (see Table 4). In 1996, graduation rates for these institutions ranged from a high of 78.8 percent (up from 67.7 percent in 1993) to a low of 34.8 percent (up from 25.7 percent in 1993). Five of these institutions reported graduation rates above 50 percent. The average graduation rate for minority students at these institutions increased by more than 10 percentage points, but still was much less than the rate for white students.

Thirty-two campuses responded every year and reported an increase in their total graduation rates, even though they may have experienced a dip or anomaly along the way. As Table 5 shows, the average six-year graduation rate for these institutions increased slightly, from 39.5 percent in 1993 to 41.3 percent in 1996. Seven of these institutions had graduation rates of 50 percent or higher. Once again, the average graduation rate for minority students at these colleges was much less than that for white students.

Not all of the campuses responding to the survey for four consecutive years showed gains in their six-year graduation rates. Twenty-three institutions reported fluctuations and drops in their graduation rates over the period, with the result that their reported rates in 1996 were lower than those in 1993. On average, fluctuations in institutional graduation rates ranged between 3 and 5 percent over the four years, but one institution showed a drop of almost 30 percentage points between 1995 and 1996. Four institutions showed steady declines year after year, from an aggregate six-year graduation rate of 34.9 percent in 1993 to an aggregate rate of 27.6 percent in 1996.

Because all of these colleges and universities had chosen to participate in the project and had provided usable data on survey responses for the four years, one must assume that their administrators are monitoring student retention and graduation rates, a necessary condition to improving them (see below). The question arises: What conditions on these campuses might account for the fluctuating or declining rates? Without an analysis of campus conditions and student demographics, a definite answer is not possible. Nevertheless, a review of these respondents shows that almost two-thirds are urban-serving institutions that customarily enroll large numbers of adult and nontraditional students. These students tend to take longer to complete degree programs than do "traditional" students. Additionally, about one-third of the campuses have recently undergone substantial reorganization or changes in administration. Whether these are, in fact, factors that contribute to changes in graduation rates requires more thorough investigation, but such conditions do affect campus climate and could reasonably be expected to have some influence on student persistence.

Table 2. 1996 Six-Year Graduation Rates for Full-Time, Full-Year, Degree-Seeking Freshmen, by Institutional Admissions Selectivity[1]

	Missing	Very Difficult	Moderately Difficult	Minimally Difficult	Non-Competitive
Number of Institutions	12	4	150	30	20
Six-Year Graduation Rates for Full-Time, Full-Year, Degree-Seeking Freshmen					
Overall	39.1%	57.9%	44.8%	33.3%	32.8%
Men	33.7%	60.2%	40.2%	27.9%	28.5%
Women	42.3%	56.9%	47.1%	36.8%	36.5%
Non-Resident Alien	46.7%	44.4%	37.0%	35.7%	27.0%
Black, Non- Hispanic	31.1%	57.4%	31.7%	31.9%	17.0%
American Indian/ Alaska Native		100.0%	30.3%	18.7%	21.0%
Asian/Pacific Islander	30.4%	68.3%	42.4%	26.9%	28.7%
Hispanic	29.6%	35.9%	29.5%	18.1%	24.3%
All Minority Students[2]	30.8%	38.3%	33.3%	29.6%	19.6%
White, Non-Hispanic	43.6%	75.3%	46.9%	34.4%	35.1%

[1] Admissions selectivity standards are based on the *1996 Peterson's Guide to Four-Year Colleges*.
[2] Does not include non-resident alien students.

Administrative, Academic Advising and Assessment Conditions

The NRP survey also asked institutions to describe several administrative, academic advising and assessment conditions[6] on their campuses that might have affected graduation rates. Respondents indicated the extent to which these conditions described the practices at their institutions. The responses were recorded on a Likert scale, which ranked

institutional self-assessments from 1 (not descriptive) to 5 (very descriptive).

To determine which of these conditions might have had a positive effect on graduation rates, the responding institutions were divided into two groups, based on their 1996 rates. Selection into the groups was based on the average and standard deviation of the graduation rates of the 1996 survey respondents. Because the average rate was about 43 percent, and the standard deviation was 13 percentage points, the "high-rate" colleges were those that had graduation rates of 56 percent or higher (43+13). Conversely, the institutions with graduation rates of 30 percent or lower (43-13) were the "low-rate" colleges.

Twenty-nine institutions were identified as having graduation rates of 56 percent or higher, while 46 colleges had rates of 30 percent or lower. The average graduation rate for the "high-rate" colleges was 63.6 percent, compared to 24.5 percent for "low-rate" institutions. The average graduation rate for minority students at "high-rate" colleges was 49.5 percent, versus 21 percent at "low-rate" institutions. Among white students, the average graduation rate at "high-rate" colleges was 65.5 percent, versus 25.8 percent at "low-rate" institutions. Over 85 percent of the high-rate colleges had selection criteria rated at "moderately difficult" or higher (i.e., more selective), while 46 percent of the "low-rate" colleges had either "noncompetitive" (open) enrollment or "minimally difficult" enrollment criteria.

Table 6 shows a comparison of selected campus administrative, academic advising, and assessment conditions, based on the responses between "high-rate" and "low-rate" colleges. The percentages in the table are based on the numbers of institutions in each group who said the campus conditions were "descriptive" or "very descriptive" of their colleges.

As the table shows, nearly the same proportion of "high-rate" and "low-rate" institutions—86.2 percent versus 87 percent—said that "retaining and graduating more students is one of the top three priorities of campus administrators" was descriptive or very descriptive of their campuses. However, 62 percent of the "high-rate" institutions said that "the campus meets state goals for students' graduation" was descriptive or very descriptive, compared to just 17.4 percent of the "low-rate" campuses.

Several academic advising conditions also may have been indicative of institutions with high graduation rates. Over 79 percent of the "high-rate" colleges said that providing orientation programs that address issues of cultural sensitivity was descriptive or very descriptive of their campuses. This compared to about 54 percent of the "low-rate" institutions. Furthermore, 62 percent of the institutions with "high" rates said that providing an "early alert system" for students identified as being in academic difficulty was descriptive or very descriptive of their colleges. This compared to just 41 percent of colleges with lower-than-average graduation rates. And nearly 83 percent of the "high-rate" colleges said that providing community college transfer students with accurate and timely course selection and financial aid information was descriptive or very descriptive of their institutions, compared to 69.5 percent of the colleges with lower graduation rates.

On the other hand, about 80 percent of the "low-rate" colleges said that "students identified as lacking the competencies required for entry level courses receive appropriate instruction in basic skills, academic advising, and tutoring" was descriptive or very descriptive of their campuses compared to 65.5 percent of the "high-rate" institutions. However, the institutions with the higher graduation rates also had higher admissions selection criteria. Thus, there was probably a lower proportion of the students enrolled at "high-rate" institutions who required basic skill courses.

Campuses' efforts to assess student progress also appeared to play a role for institutions with higher graduation rates. Nearly 90 percent of the "high-rate" colleges said that "senior administrators regularly monitor information about progress in increasing retention and graduation rates of students" was descriptive or very descriptive of their institutions, compared to 69.3 percent of the "low-

Table 3. Six-Year Graduation Rates for First-Time, Full-Time, Degree-Seeking Freshmen at Institutions that Responded to the NRP Survey for Four Consecutive Years[1]

	1993 (Fall 1986 Freshmen Cohort)	1994 (Fall 1987 Freshmen Cohort)	1995 (Fall 1988 Freshmen Cohort)	1996 (Fall 1989 Freshmen Cohort)
Overall	40.2%	38.6%	40.9%	40.2%
Male	36.2%	34.1%	36.7%	35.6%
Female	43.7%	42.4%	44.3%	44.0%
Non-Resident Alien	39.0%	36.0%	33.9%	40.9%
Black, Non-Hispanic	26.9%	27.7%	29.6%	30.7%
American Indian/ Alaska Native	28.2%	23.5%	29.8%	21.1%
Asian/Pacific Islander	39.3%	39.5%	40.2%	40.3%
Hispanic	28.6%	27.7%	27.5%	27.0%
All Minority Students[2]	29.3%	29.2%	30.5%	30.6%
White, Non-Hispanic	42.5%	40.7%	43.5%	42.8%

[1] Based on 62 survey respondents who provided usable graduation rate data for four consecutive years of the NRP.
[2] Does not include non-resident alien students.

rate" colleges. And about 59 percent of the higher-rate institutions said that measuring student outcomes and post-graduation accomplishments was descriptive or very descriptive of their institutions, compared to about 41 percent of the lower-rated colleges.

These administrative, academic advising and assessment conditions might be important for describing the reasons for differences in graduation rates for "high-rate" and "low-rate" institutions. However, these results should be read with caution, since other factors and data that are not collected by the survey instrument—such as student financial aid—also may have affected graduation rates. It is also possible that institutional admissions selectivity criteria may have played a stronger role in influencing graduation rates than the campus administrative and academic conditions.

Table 4. Six-Year Graduation Rates for First-Time, Full-Time, Degree-Seeking Freshmen at Institutions that Responded to the NRP Survey for Four Consecutive Years and Increased Their Graduation Rates Every Year[1]

	1993	1994	1995	1996
	Six-Year Graduation Rates for First-Time, Full-Time, Degree-Seeking Freshmen			
Overall	42.5%	48.2%	50.4%	52.8%
Male	37.5%	42.4%	44.8%	47.6%
Female	46.5%	52.6%	54.7%	56.8%
Non-Resident Alien	50.0%	53.8%	42.9%	42.6%
Black, Non-Hispanic	28.8%	34.0%	33.3%	36.1%
American Indian/Alaska Native	31.6%	35.7%	45.0%	39.5%
Asian/Pacific Islander	45.5%	46.0%	48.6%	53.4%
Hispanic	27.5%	35.8%	39.6%	40.8%
All Minority Students[2]	32.1%	37.0%	39.2%	42.4%
White, Non-Hispanic	44.2%	50.1%	45.6%	55.2%

[1] Based on eight survey respondents
[2] Does not include non-resident alien students

Table 5. Six-Year Graduation Rates for First-Time, Full-Time, Degree-Seeking Freshmen at Institutions that Responded to the NRP Survey for Four Consecutive Years and Increased Their Overall Graduation Rates[1]

	1993	1994	1995	1996
	Six-Year Graduation Rates for First-Time, Full-Time, Degree-Seeking Freshmen			
Overall	39.5%	40.2%	41.2%	41.3%
Male	35.7%	33.2%	36.2%	35.7%
Female	42.9%	40.9%	43.8%	44.3%
Non-Resident Alien	34.7%	33.0%	35.0%	44.1%
Black, Non-Hispanic	27.1%	28.7%	30.8%	32.6%
American Indian/Alaska Native	20.6%	23.2%	34.4%	26.1%
Asian/Pacific Islander	35.8%	38.7%	39.4%	38.0%
Hispanic	29.4%	28.9%	25.9%	26.8%
All Minority Students[2]	28.1%	29.4%	30.6%	31.7%
White, Non-Hispanic	41.4%	38.7%	42.1%	42.2%

[1] Based on 32 survey respondents
[2] Does not include non-resident alien students

Conclusion

The NRP survey results for four years show—in the aggregate—only marginal improvement in six-year graduation rates and that institutions with greater admissions selectivity are more likely to have higher graduation rates. For AASCU schools that have access-related missions or open admission policies, is the connection between admissions selectivity and student persistence to graduation so strong that institutions with less restrictive admissions policies cannot expect to make appreciable gains in student retention? What does this mean for their missions and their relations with state entities intent upon improving colleges' efficiency and productivity?

Notwithstanding the slight improvements documented in six-year graduation rates, the NRP has had positive outcomes. It has focused presidents' and chancellors' attention on issues of student retention and their complexity. It has made campuses aware of the student information that will be required under the Student Right-to-Know reporting conventions, with the result that the number of campuses able to provide this information has almost doubled in four years.

Of all the survey participants, only eight campuses showed steady improvement in graduation rates over the period. In the aggregate, their rates increased by 10.3 percentage points for both white and racial ethnic/minority students. In the context of overall outcomes, these results are exceptional. They speak to unusual institutional effectiveness in managing student retention and merit further study. Another 32 institutions showed overall improvement. However, their improvements were slight from year to year and gave a cumulative increase of less than 2 percent in the aggregate. Graduation rates for white students at these colleges increased by only 0.8 percentage points while rates for racial/ethnic minority students increased 3.6 percentage points. This suggests that at least some of the strategies employed by these campuses to improve student retention are having a positive effect, particularly as they relate to minority students.

Based on survey results and campuses' reported experiences in addressing issues of student retention, it is evident that improving students' retention and graduation rates is neither a short-term nor a simple proposition. Improving campus performance

depends on many factors—leadership; campus climate; administrative stability; administrative functions such as tracking and monitoring student progress; and the extent to which an institution, including faculty and staff, has adapted to meet the support needs (orientation, tutoring, advising, transfer assistance, etc.) of its particular student body. A campus wishing to improve its performance in student retention must make a long-term commitment to the endeavor and be prepared to change the campus climate and services to be responsive to its students' needs. There is no "quick fix," nor is there any "universal fix" in student retention—each institution must address its own constituency and their special needs effectively.

Future Research Questions

National Retention Project findings raise important research questions about the relationship between campus conditions and student outcomes, such as:

- What strategies have been most effective in promoting student retention to graduation?
- What conditions accounted for much better retention of racial/ethnic minority students on a few predominantly white campuses than on others?
- What conditions prompt declines in student retention?
- How do changes in institutional governance, organization, or administration affect student persistence and degree attainment?
- Given the observed relationship between admissions selectivity and student persistence, how do institutions with more liberal admissions policies make appreciable gains in student retention? ◆

References

A Need Answered. Washington, D.C.: American Association of State Colleges and Universities, 1995.

ICAR Technical Conventions Manual. Washington, D.C.: American Association of State Colleges and Universities, 1995.

Richardson, R. C. Jr., "A Model of Institutional Adaptation to Student Diversity," in *Achieving Quality and Diversity*. New York: ACE/Macmillan, 1991.

Richardson, R.C. Jr., D. A. Matthews, and J. E. Finney, *Improving State and Campus Environments for Quality and Diversity: A Self-Assessment*. Denver: Education Commission of the States, 1992.

Table 6. Selected Responses to the Administrative, Academic Advising and Assessment Conditions Section of the 1996 NRP Survey for "High-Rate" and "Low-Rate" Institutions

Campus Condition	Percentage of "High-Rate" Institutions Who Said Condition Was "Descriptive" or "Very Descriptive"	Percentage of "Low-Rate" Institutions Who Said Condition Was "Descriptive" or "Very Descriptive"
Retaining and graduating more students is one of the top three priorities of campus administrators	86.2%	87.0%
The campus meets state goals for student graduation	62.0%	17.4%
The campus provides community college transfer students accurate and timely information about course planning, financial aid, and transfer requirements	82.8%	69.5%
The campus orientation program for new students addresses issues of cultural sensitivity	79.3%	54.2%
Students in danger of failing are identified by an early alert system and receive timely advising and assistance	62.0%	41.3%
Students identified as lacking the competencies required for entry level courses receive appropriate instruction in basic skills, academic advising, and tutoring	65.5%	80.4%
The campus measures and reports on student outcomes from the course, program, and after-graduation accomplishments	58.7%	41.4%
Senior administrators regularly monitor information about progress in increasing retention and graduation rates of students	89.6%	69.3%

Prepaid Tuition Plans: Strengths and Limitations

*** State prepaid tuition plans typically allow participants to apply their benefits at a non-participating institution (e.g. a private/out-of-state college or university), but full coverage of tuition costs is not guaranteed. Also, many prepaid plans provide an enhanced refund of purchase price in the event of participant withdrawal (e.g. initial investment plus interest), less any penalties or administrative charges.**

**** Wisconsin has adopted a modified prepaid plan, which guarantees payment of future tuition as estimated at the time of purchase (rather than a guarantee to cover actual future tuition rates).**

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Overview

States have been involved in helping families save for college for some time—New Jersey led the way by offering college savings bonds in the late 1950s. In recent years, public concern over the cost of higher education has renewed policymakers' interest in college financing and has spurred the development of investment vehicles such as prepaid tuition plans. States considering these plans have been encouraged over the past couple of years by favorable developments regarding their federal tax status.

As more states move to adopt prepaid tuition plans and as federal lawmakers consider additional tax benefits for them, it is important to consider both their strengths and limitations:

- Prepaid tuition plans provide participants with a risk-free investment tool for financing a college education. However, the risk involved with this investment does not simply disappear—it is shifted to states and participating colleges and universities.
- Prepaid tuition plans ease college affordability concerns for participants, primarily middle- and upper-income families. They are not a means for increasing access to higher education—especially for the neediest students—and do nothing to address the causes of rising college costs.

Definition of Terms

A prepaid tuition plan is essentially an investment account that is guaranteed to increase in value at the same rate as college tuition. Participants "lock in" tuition rates by purchasing a defined amount of higher education service (e.g. four years of public university tuition) at current value (or discounted value in some cases). This purchase is later redeemed at full value on enrollment at a participating institution, regardless of tuition inflation.* The plans make this possible by investing the money paid by participants and using investment earnings to cover tuition inflation. The first such plan was established in Michigan in 1986; today, 13 states offer these plans (Alabama, Alaska, Colorado, Florida, Massachusetts, Michigan, Mississippi, Ohio, Pennsylvania, Tennessee, Texas, Virginia and Wisconsin) and another six have authorized them (Maryland, Minnesota, Missouri, New Mexico, Oklahoma and West Virginia). Three basic forms of state prepaid tuition plans have emerged over time**:

- Contract. Participants purchase a contract for a predetermined amount and type of tuition (e.g. two-year community college, two-year community college plus two-year college/university, four-year college/university) and pay either in lump sum or by installment. Many states offer contract rates that vary by the age of the beneficiary at the time of purchase, with lower rates offered to younger beneficiaries.
- Credit. Participants purchase credits/sub-units of credit at their discretion. The rate per credit/sub-unit of credit is adjusted annually, and there is no age differential in purchase price.
- Certificate. Participants purchase a certificate that is equal to a certain percentage of tuition at the time of purchase (e.g. a $1,200 certificate that currently equals 20 percent of tuition at a given college), and this percentage is guaranteed at the time of redemption. When redeemed, the plan will pay a participating college or university the face value of the certificate plus interest (in Massachusetts, this rate is the Consumer Price Index plus 2 percent, compounded annually). If tuition increases exceed the repayment premium, the institution must make up the difference (GAO, 20-25).

The Federal Role

Federal policy has significantly affected the development of state prepaid tuition plans, primarily through the tax code.

In the early years of state prepaid plans, there was a great deal of uncertainty regarding their federal tax status. In 1988, the IRS stated in a private letter ruling to the Michigan Education Trust (MET) that the trust's investment earnings were subject to taxation, as well as the investment earnings for each beneficiary. MET contested the ruling on the taxability of the trust's earnings, and won an appellate court decision in 1994. While the litigation worked its way through the judicial system, new development of prepaid tuition plans by states nearly ground to a halt (GAO, 93-98).*** The Small Business Protection Act of 1996 (P.L. 104-188) clarified the tax status of state prepaid plans. The act codified the tax exemption for the plans' investment earnings and limited taxation of participants' investment earnings to the rate of the beneficiary (the student) at the time of distribution (IRS, 3).**** This was interpreted by many as a "green light" for states considering prepaid plans (Healy, A63).

Federal interest in prepaid tuition plans continues, with the 105th Congress considering a number of bills that would further encourage their development. Most of the bills deal with the plans' tax status (e.g. full exemption of participants' investment earnings and exemption of savings bond interest used for purchasing prepaid plans), while others seek to establish a national Higher Education Accumulation Program (HEAP) and award grants to states for the establishment and administration of prepaid plans.***** (See "Subsidy" below for

additional information on prepaid tuition provisions in House and Senate tax legislation.)

Issues

1. Participation

One of the primary reasons offered by state policymakers for pursuing prepaid tuition plans is the encouragement of saving to preserve access to higher education. Because middle- and upper-income families are more likely to have available income to save, they make up the majority of prepaid tuition plan buyers.

- Data from Florida and Alabama show that more than half of prepaid tuition plan buyers in Fiscal Year 1993 reported incomes of $50,000 or higher, while the portion of FY93 buyers with incomes of $30,000 or less ranged between 9 and 16 percent. Median household income for Florida in FY93 was $27,252; for Alabama, it was $24,346. In 1993, 28.6 percent of U.S. households reported incomes of $50,000 or higher (GAO, 34-36; Halstead, 3, 19, 103; Census, 470).
- A 1992 survey of participants and non-participants in Ohio's plan revealed that 61 percent of plan buyers had incomes of $51,000 or higher; by contrast, a majority of non-buyers surveyed (53 percent) reported income below $31,000 (GAO, 37-38).

States have expressed interest in increasing lower-income participation in prepaid tuition plans, but relatively few solutions have been offered. Michigan developed a monthly payment option in an effort to make its plan more economically accessible, but this effort had a small impact in changing the income distribution of buyers. (Lehman, 35). Other suggestions include the development of a sliding fee scale (based on income) for plan purchasers and the adoption of a state/federal tax credit for plan purchasers below a certain income threshold.

Administrators of prepaid plans, however, question the viability of such proposals, particularly given their potential complexity and their requirement of state or federal resources (GAO, 40-45). Many analysts agree that efforts to increase participation by lower-income families will at best have a marginal impact because many of these families simply do not have the disposable income needed to participate.

2. Subsidy

The question of who participates in state prepaid tuition plans becomes especially salient when considering the tax subsidies associated with them:

- Nearly every state that has a prepaid tuition plan and collects personal income tax exempts prepaid plan investment earnings from taxation, which is a form of subsidy. Some states also subsidize prepaid plans through appropriations or grants for their administration and operation (CSPN, 20).
- Legislation currently under consideration in Congress (H.R. 2014, S. 949) would extend a substantial federal tax subsidy to participants in prepaid tuition plans. The House of Representatives has proposed the deduction of earnings on prepaid plans (up to $10,000 per year) from federal tax liability, while the Senate has proposed totally exempting such earnings. Over the next five years, the House plan is estimated to cost $889 million, while the Senate proposal carries a price tag of $969 million. Using the income distribution statistics cited above, more than half of this benefit would accrue to participating households with income of $50,000 or higher (Committee on Ways and Means, 2; JCT [6/9/97], 1; JCT [6/17/97], 2).

Some argue that offering disproportionate subsidies to middle- and upper-income families is offset by the removal of these students from federal financial aid consideration, thereby freeing up aid for lower income students. But a sampling of institutions by the General Accounting Office revealed that a majority of prepaid plan participants at these institutions in 1993-94 and 1994-95 did not apply for aid, and most of those that did had enough money without their prepaid tuition plan investment to make them ineligible for aid. Also, money not borrowed by prepaid plan students does not then become available to eligible students (GAO, 54).

3. Risk Considerations

One of the most popular features of prepaid tuition plans is the "peace of mind" factor for participants—the guarantee that the amount of service originally purchased will be provided in the future, regardless of external factors such as inflation. This sets prepaid plans apart from other investment vehicles, as well as the fact the prepaid plans are linked to the price of a public service with a unique and volatile set of cost pressures. Like other investments, prepaid plans contain several risks:

- To remain solvent, prepaid plans must maintain a rate of return that matches or exceeds tuition inflation; in recent years, this has meant a rate of return 2 to 3 percent above the Consumer Price Index. Many analysts believe that meeting this margin over an extended period promises to be difficult, given historical rates of return for investment instruments such as common stocks and short- and long-term government bonds. Prepaid tuition plans can encounter a solvency crisis when tuition inflation significantly or consistently exceeds a

***** Virginia passed legislation authorizing a tuition prepayment program in 1994, which stipulated that contract sales could not begin until the IRS ruled that the program's investment earnings would be exempt from federal taxation (addressed in the Small Business Protection Act of 1996).**

****** Prior to passage of this law, there was speculation that the IRS would rule that state prepaid tuition plans be considered as debt instruments, which would require buyers to pay taxes annually on their investment earnings.**

******* See H.R. 53, H.R. 656, H.R. 855, H.R. 1355, H.R. 1369, H.R. 1394, S. 285, S. 594**

*** The linkage between tuition rates and state higher education appropriations is strongly suggested by AASCU's finding that between FY80 and FY96, the amount by which tuition per full-time equivalent (FTE) student exceeded its inflation-projected levels roughly equals the amount by which appropriations per FTE student lagged behind its inflation-projected levels.**

plan's rate of return on its investments (Spellman, 78-80). Florida, which has one of the strongest prepaid tuition plans in the nation, faced this phenomenon earlier this year. A Florida State University System panel suggested a tuition increase of 10 percent a year for the next 10 years, well beyond the prepaid tuition plan's expected 7.5 percent annual rate of return. This triggered a flood of concern by plan participants and provoked a backlash against the tuition proposal ("Participants," A25).

- Tuition rates—which are the linchpin of prepaid tuition plans—are not set in a vacuum. They are particularly susceptible to changes in state higher education appropriations, which in turn are dependent on a state's fiscal health.* When the economy is down and budgets are squeezed, states have tended to disproportionately cut higher education (relative to other state-funded services), leaving institutions and governing boards to consider options such as internal reallocations and tuition increases. Under such a scenario, the linkages between tuition rates, state appropriations, and prepaid tuition plans could place public colleges and universities in a difficult fiscal position.
- State prepaid plans can endanger their financial solvency by relying on optimistic actuarial assumptions, discounting contract prices to encourage participation, or both. The above points illustrate how difficult it is for prepaid plans to make accurate long-term projections about tuition increases or rate of return, and plans can run into trouble if they under-price contracts and later experience higher than expected tuition, lower than expected rates of return, or both.

These risk factors are significant because Florida, Massachusetts, Mississippi and Ohio back their plans with the full faith and credit of the state (CSPN, 32). Even if a plan is not backed by the state's full faith and credit, there may be a formal or informal expectation that public funds will be available to honor contracts or issue refunds in the event of insolvency. When the Michigan Education Trust faced a potential shortfall of $50 to $100 million, Michigan's governor spoke of a "moral obligation" for the state to compensate participants for their investment and earnings, even though the state has no statutory requirement to provide such compensation (Lehman, 33-34).

Summary

- Prepaid tuition plans offer an incentive for buyers to plan ahead and save for higher education, and have enabled families to save and earn more than they may have without such plans. However, these plans are focused on families well above the median income level, subsidizing their investment and asking the state and its taxpayers to ultimately assume the risk involved with matching tuition inflation.
- Many states adopt prepaid tuition plans with the stated objective of preserving economic access to higher education, particularly for middle-income families. Research shows, however, that concerns over economic access should be focused on students at the lower end of the income spectrum. Despite substantial increases in need-based student aid over the past 20 years, the percentage of freshmen at four-year public colleges with family income below the total family median was lower in 1993 (41.2 percent) than in 1966 (46.1 percent). Also, the gap in enrollment rates for students from families in the bottom income quartile and students from more affluent families increased by 12 percentage points between 1980 and 1993 (Davis, 14-15).
- State prepaid tuition plans are popular because they help middle class families get a handle on rising student charges, which is a key pocketbook issue among likely voters. They do not, however, address the factors contributing to rising costs, one of which is the volatile nature of state higher education appropriations.
- The tax proposals currently before Congress represent endorsement of state prepaid tuition plans as appropriate public policy and a significant expansion of federal subsidy for their participants. Given the points above and the continued shift from grants to loans in federal aid, Congress needs to seriously consider the implications of these proposals, specifically whether or not they further the objective of equalizing opportunity for higher education. ◆

Sources

College Savings Plan Network (CSPN). *Special Report on State College Savings Plans*. Lexington, KY: The Council of State Governments, 1996.

Commerce Department, Bureau of the Census. *Statistical Abstract of the United States: 1995*. Washington, DC: GPO, 1995.

Davis, Jerry. *College Affordability: A Closer Look at the Crisis*. Washington: Sallie Mae Education Institute, 1997.

Halstead, Kent. *State Profiles: Financing Public Higher Education 1978 to 1996 Trend Data*. Washington, DC: Research Associates of Washington, 1996.

Healy, Patrick. "U.S. Gives States Seal on Prepaid Tuition Plans." *The Chronicle of Higher Education* (September 6, 1996): p. A62.

House Committee on Ways and Means. "Archer Announces Committee Action on Budget Reconciliation Revenue Recommendations" (FC-9-A) June 16, 1997.

Joint Committee on Taxation (JCT). "Committee on Ways and Means: Estimated Budget Effects of

Chairman's Mark Relating to Revenue Reconciliation Provisions" (JCX-23-97: June 9, 1997).

———. "Senate Finance Committee: Estimated Budget Effects of Chairman's Mark Relating to Revenue Reconciliation Provisions" (JCX-32-97: June 17, 1997).

Lehman, Jeffrey. "The Distribution of Benefits from Prepaid Tuition Programs," in *Prepaid College Tuition Plans: Promise and Problems*. Ed. Michael Olivas. New York: The College Board, 1993.

"Participants in Florida's Prepaid-Tuition Program Grow Nervous," *The Chronicle of Higher Education* (February 14, 1997): p. A25.

Spellman, Lewis. "Real Return Investments as a Tuition Hedge," in *Prepaid College Tuition Plans: Promise and Problems*. Ed. Michael Olivas. New York: The College Board, 1993.

Treasury Department. Internal Revenue Service (IRS). *Highlights of 1996 Tax Changes*. Washington, DC: GPO, 1996.

United States General Accounting Office (GAO). *College Savings: Information on State Tuition Prepayment Programs*. Washington, DC: GAO, 1995.

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